

GREENBERG

1982 - Warbler  
Collection log

1983 - WEN  
Maryland

7530-00-222-3521

FEDERAL SUPPLY SERVICE

(GPO)

1982 log of  
the Wubker collection

March 1992

As of ~~20~~ 7 March

I had 26 warblers:

7 CSL

4 BBW

6 MyW

4 MW

4 CMW

before leaving for Puerto Rico

I upped the light to  $13\frac{1}{2}$  hrs.

I Csw began to molt  $\approx$  2 March.

Sub-

singing was at a low level,

but involved several individuals.

The week after I got back

22-30 March I upped light to

14 hrs (too much!) - since no

birds had begun to molt but

CMW blue.

(CMW yellow, black & blue in molting)

1st week of April +

My, Hsi, Pnk + P. & K. yellow

were in spring plumage via Web.

~~by A~~

Singing was intense by last few

days of March - in Csw, MW,

BBW, BTB & L. in particular.

March 24 I placed BBW R<sup>(P)</sup>  
B+R(♂) in double Avery  
with Hemlock branches +  
doweling. I put Blk + pink +  
yellow in 2<sup>nd</sup> March 30 to 7<sup>th</sup>  
Avery.

Red + Blk-Red also got  
CJW C+L, BW next day  
but BBW chased BW too  
much & CJW BW may not  
have been eating.

Blue + Pink + yellow show  
little aggression, but Red +  
Blue + Red had to be  
separated. Red in smaller  
right-hand Avery.

March 26

We offered soaked carrots  
to all 4 birds & Blue +  
pink + yellow went for  
them in a big way!

They immediately then  
got juice.

We put all birds back  
on egg-shell mush &  
stopped up漏洞.

BBW

March 27-28 ♂♂ are singing  
a lot + ♀♀ are pulling CL  
foliage + attracted to CL. No  
exclusion. ♂ Blue follows ♀  
around (♀ is skittish, hicy  
♂) & some aggression is  
noted.

Both ♂ top high - further  
front part of cage a lot.  
No sign of molt.

All birds are tame around  
people + visit food dish readily.

April 5 I took pink, ♂  
nest + green ♀ My L +  
B♂ + PY ♀ CJW to bird house.

They are put in large white-metal  
quincies. The situation is  
more disturbed than is good.  
all birds are a. fly around  
& p. of Avery a lot.

April 6 9:00 B♂ CJW was  
caught outside at 7:30 am by  
keepers. All birds but him  
approach food dish when I  
watched - 3 My L to ♀ My L a lot.

Worm-eating Warbler  
1 May: non-singing bird low to 10'  
bamboo grub then  
creeped up small trunk &  
probed at 6' Maple duckling  
✓ & probed 2-3x at newly  
cav'd maple leaves. (Longwood  
fir short white)

9:30-12:00 <sup>just before mtg</sup> ~~class across Rd~~  
3 May: Sing ♂ in deciduous?

shrub, then 50' in tree

✓ climb leaves 7-10 times, incl.

2 times, + promiscuous  $\leftrightarrow$ !

Blue tit!

✓ ♂ - Fg LD 8x petiole stem 1  
chen + oak  $\approx$  15-20'

✓ ♂ hgx1lb, hnx2lb, tgg stem  
Fg 1b x 5 silly - 35' - reg. 1-  
silk tit!

✓ ♂ hgx3, 1b xl x 4 - chen + oak

✓ ♂ Lb gl x 2 - tgg stem

Sim



5 May

then I saw it dive into dense

Laurel undergrowth. I heard lots of

front & top - & saw at 100'

2 W.W. chick(s) with wings short

spread - both dry with a few,

so I assume both were 65

✓ I saw both birds, prob. dead leaves,

(no hig. on tail) - 9 x - all 0.4

leaves in Laurel. 2nd S up in oak

then 1bx 7 + got 1 <sup>brown</sup> green (homop?)

break 1x1. & saw 5-10 more

1b green by both birds in oaks

shrub 100m down trail

✓ I saw sin, ♂ 40-50m fluncing

O.K. (not Chestnut Oak) - 10x, if  
pecked at O.K. (thick).

~  
1/2 hr later I returned to

spot of bird attraction, with

10 minutes 3 b.x. were back  
in oak - chewing.

✓ I saw 3 11" <sup>♂</sup> (2 c. l. p. l. v.)

I dried leaf <sup>green</sup> (0.4) & dried branch 2' up

had broken on ground briefly

1 bark green.

10 May 730-

I walked from bottom lot

to top of hill white tail in 2/4 m:

along bottom I saw 2-3

new & some squibbling

Foxes: 20, 40, 40 - cluster 0-5

✓  
1bgl x 12  
flower stalk x 12  
stgl x 2  
fru x 2

✓ chaff to understory by mice

in Ash? - oak leaf prairie

30<sup>+</sup> 1bgl  
rbLg - milkweed  
petals  
Milkweed shrub - 1bgl

on S-C Between chin & Oak trail -

3 we l singing 20' c. oak

✓ 1bgl x 10 (3 mature) both stems  
petals broken 1bgl

Horn trail below prairie lot -

✓ 7x1hgl

May 12



✓ 40' sun 1bgl x 7  
Lunaria annua

♂ + ♀ view in area around  
fork, K. entering at beginning of  
blue/white trail.

♂ Sings only until quiet ♀  
comes up both trail  
through undergrowth 0-1' off  
ground

✓ ♀ - Az. bell. 1st lg x 1  
+ 2 with last probe  
nesting?

chut

4 oak 1 h glow

2 larch 1 b green

blue birds flying in " "  
tree

I went down blue trail

at junction of blue trail + blue

✓ Sings 30' in oak 1b x 4  
feet tall

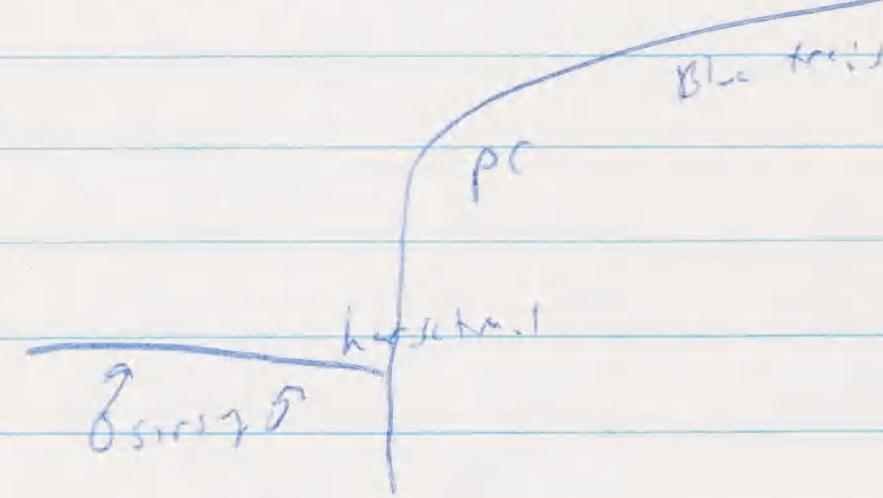
✓ but zoom down trail I saw wings but  
✓ oak canopy ≈ 40' 1b x 4 x h x 3 -  
caterpillar

flown to undergrowth & stopped with  
another bird.

at curve in trail I whistle

✓ 1 rot. spr. in - oak canopy  
12-15 lb (2.5 hang, 1 kg)

2 prob. in cold (act.)

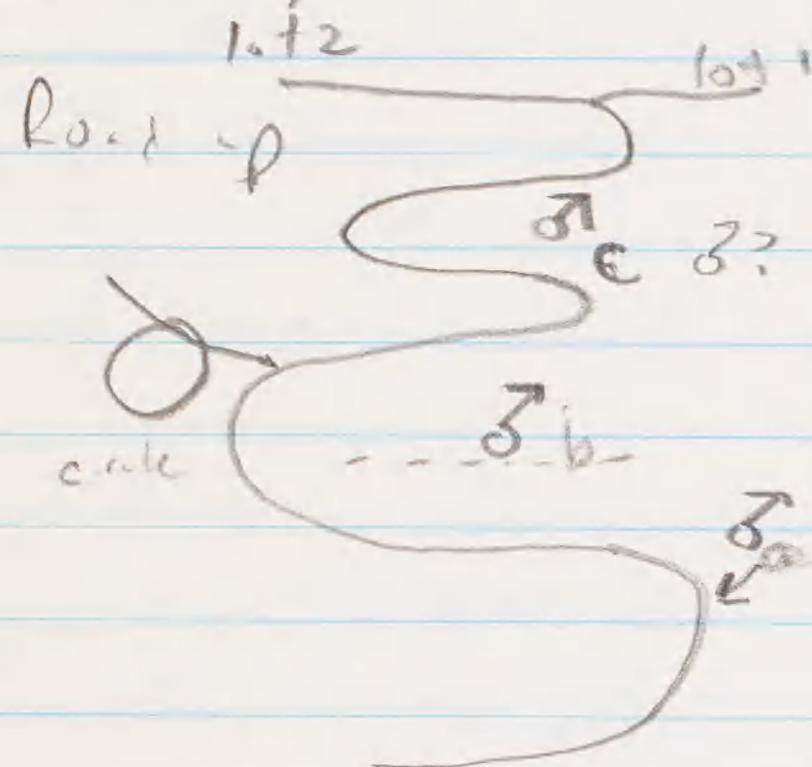


On lower penick area loop

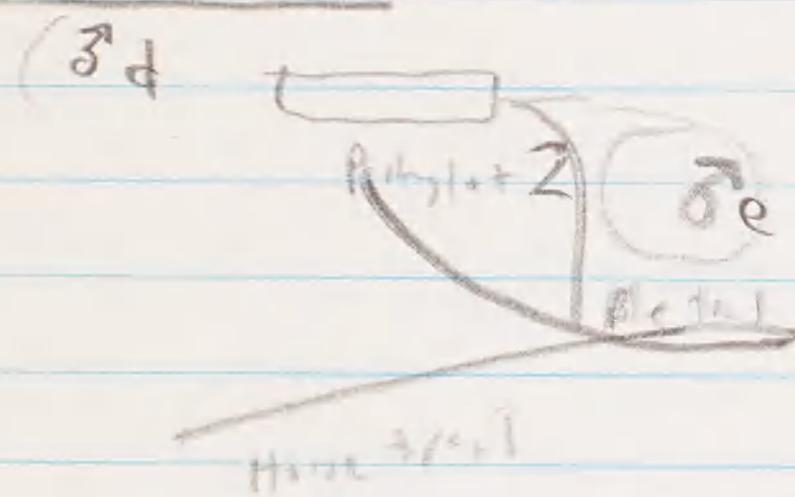
✓ first 15 - 5 1b x 3 1b hang +  
+ bushy

30' chestnut oak

13 May 730 - 1200



3 bluebird trail



Foraging data

✓ a 20' Hgln cock - 1bgl x 6  
caterpillar

✓ b 30' cock 1bgl x 2 1bgl x 5

✓ c 30' cock 1bgl x 5

✓ 15' up br gl x 2 - trunk gl x 1

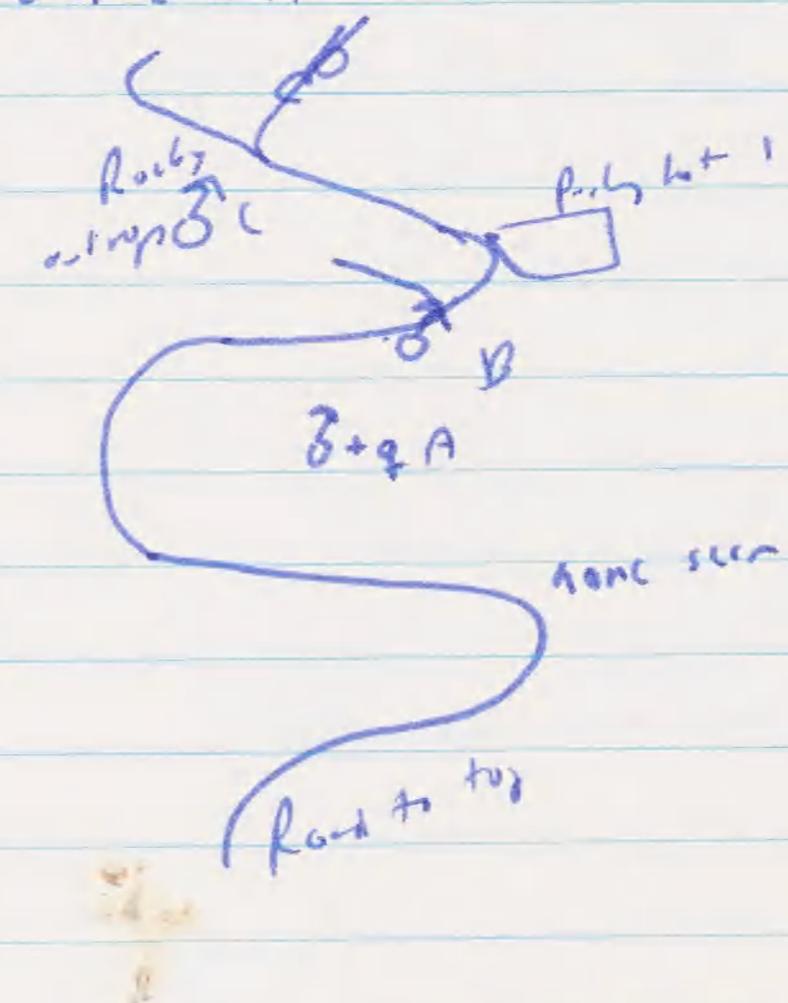
1bgl x 5

✓ 40' 1bgl x 7

✓ d continues to sing more  
from low down - but I  
saw none - 99

May 17

walked up Roc to top of  
to bottom of Blue + Horn tr. +  
up white tr.



5 ♂ A chick 9 ♀ was on

ground a lot "body for

nest site?) no form on

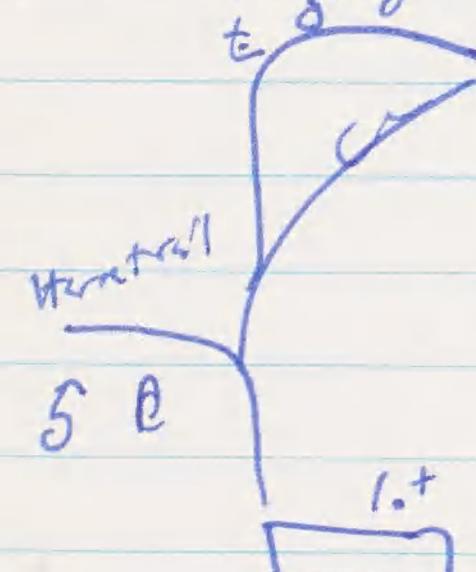
ground 5 birds 10' :: shrub.

✓ ♂ 35' c.o. with leaf damage

1 cat green <sup>prob</sup> >10 3 caterpillars

5  
h6

✓ 3 c 5 x dbg 35' c.o. 1 caterpillar



✓ Mole ♂ 30' c.o. 1 hsl 5 - 1 larva 1  
2 caterpillars

✓ Mole ♂ 35' c.o. 1 hsl x 5

✓ Mole R 35" c.o. 1 hsl x 2

May 18 8:00-12:30

Stayed at top area

Watched territory along white

1800-1930 1130-1230

trail (on slope). Hd pr

short times chirping in

Shrubbery - one was up

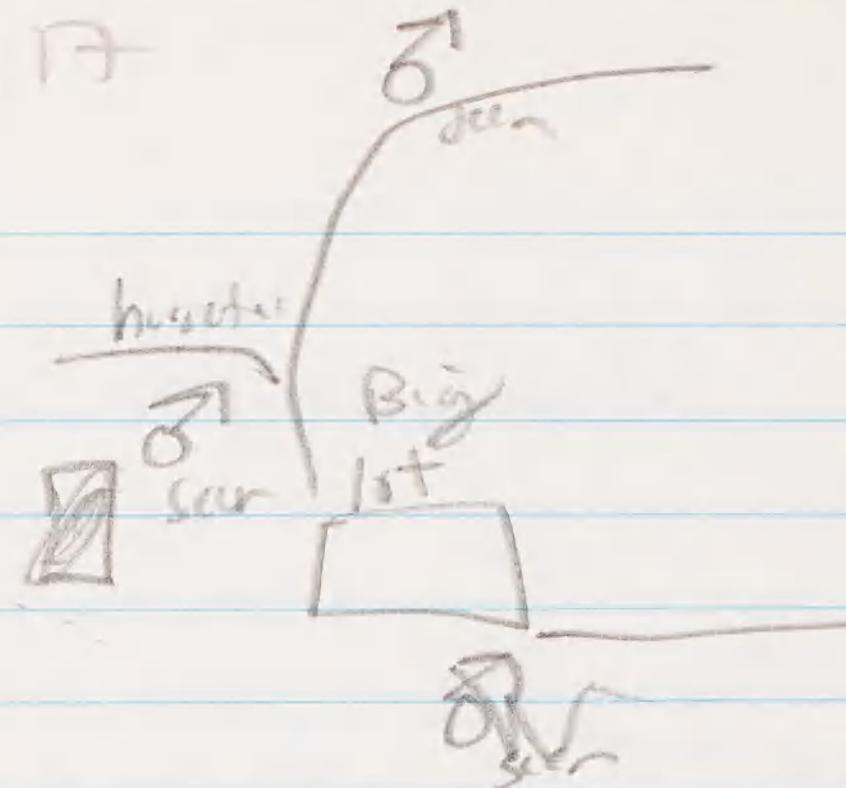
✓ into c.o. - perched by leaf and  
singing got 1 complete

one bird mobbed me 2 times

♂ in widely separated places.

♂ - ♂ not singing at all

May 17



hd ♂ down trail + slope

went to Horse trail ♂

✓ 30' c.o. lateral probe x 2

got 3 amplitudes

down Blue trail with ♂ at Bird

cord below left

✓ 25' c.o. 1b3l x 3 lateral probe x 2

hd ♂ down slope.

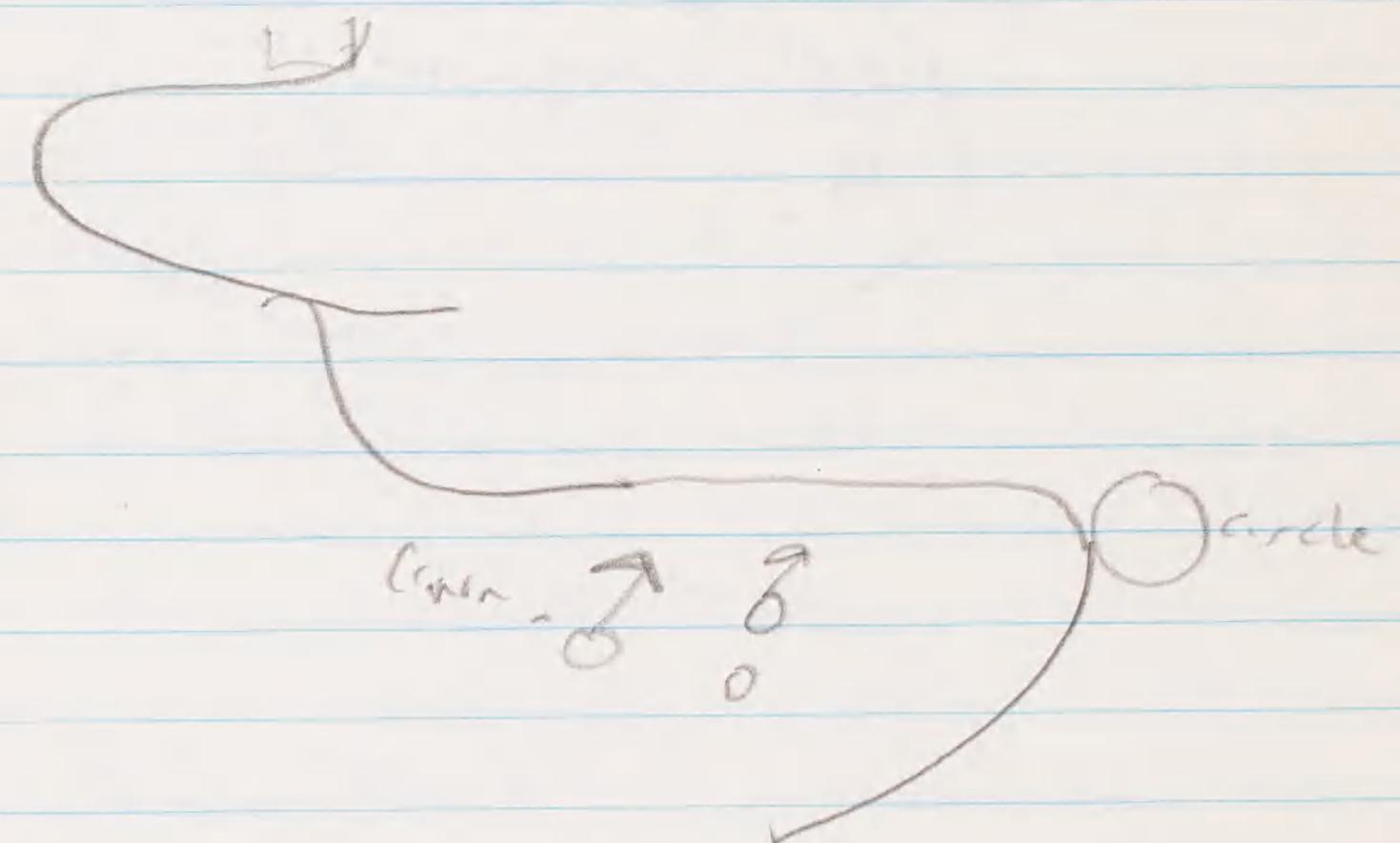
went to "cannon" area - be sin 2

♂ near each other

✓ 8' area when not sloping - 20' c.o.

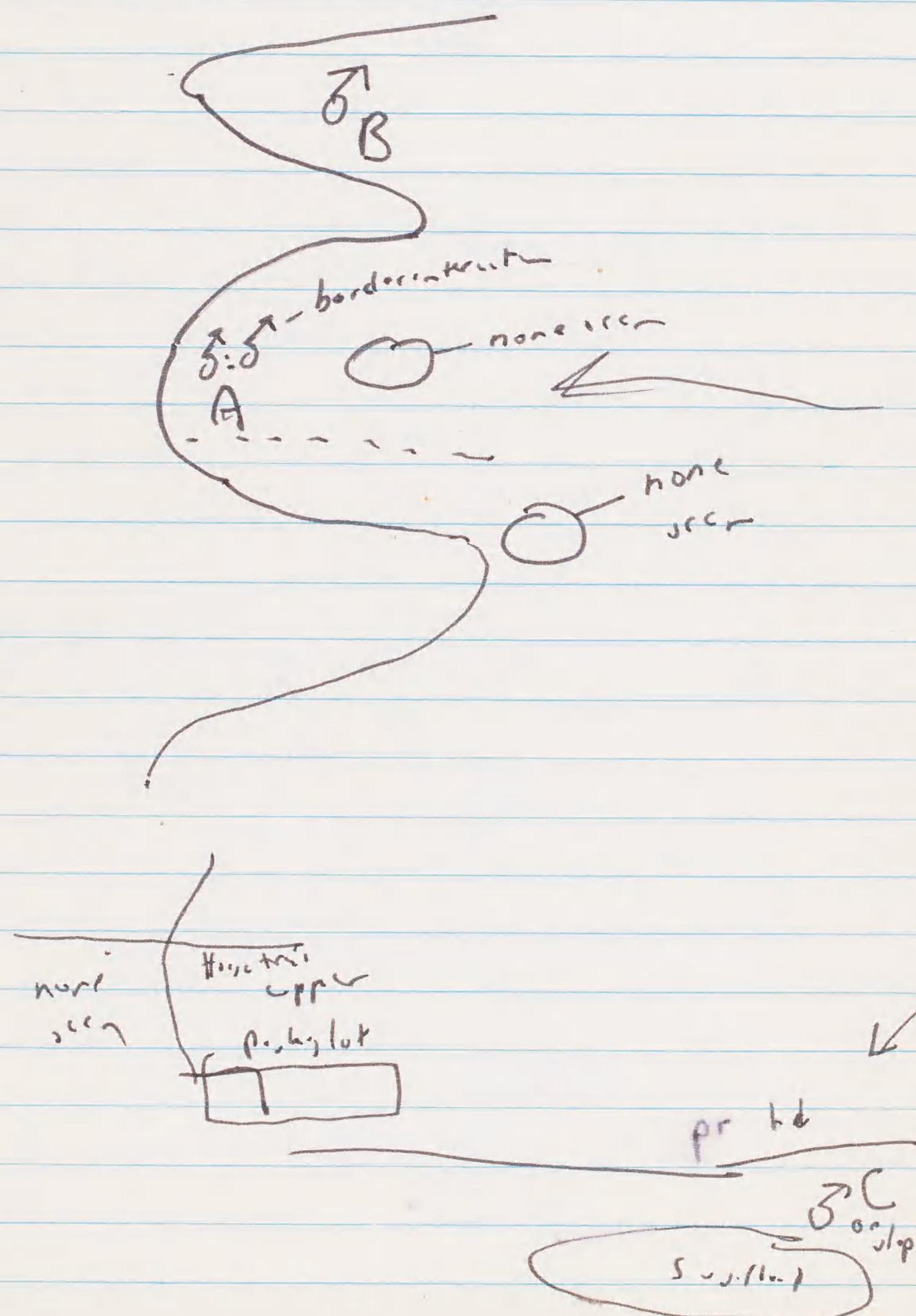
1b3l x 2

✓ 7x1 ♂ lateral probe x 5 - sin  
2' p. 11 (1).



19 May 830-1230

I checked the following territories



✓ ♂ A 5-10' 1b gl. C.O/Azalea  
ground feed, Peck lot  
prob x 2

✓ ♂ B 40' 1b gl

✓ ♂ C 20' hg @ 2' C.O 1b-1b, l x 4

note  
Territories where ♀ have been seen

♂ stop singing all together

singing L, stopped on a

third tr. 2nd.

7 juv ♂: ♂ interaction

at territory A - as usual

chop bill place near ground.

Monday 23 May 1200-1300

I checked territory by <sup>white</sup> Blue Trail.

See & heard nothing. 3 were

sing in the territory on slope.

I cut down toward Blue trail

from white trail & found 3 more

low in undergrowth (Clock (bglx3)

it went into <sup>forest</sup> bush &

continued to sing.

♂ at 1st census at ~~at~~ P. trail

could not be found, nor could

♂ at Horse-trail-Blue-trail set.

I went to low peninsula

(by trail) & from roadside &

saw ♀ flying rapidly 20'

✓ in C. O. C. (bglx3). FL

dropped onto ground & disappeared

It was in a nest - I heard

under the small *Lemnaceae* plant on

open hillside. - ♀ laid a <sup>few</sup> *laid* 1 <sup>few</sup> *laid*

egg.

I collect 100 leaves from lowest

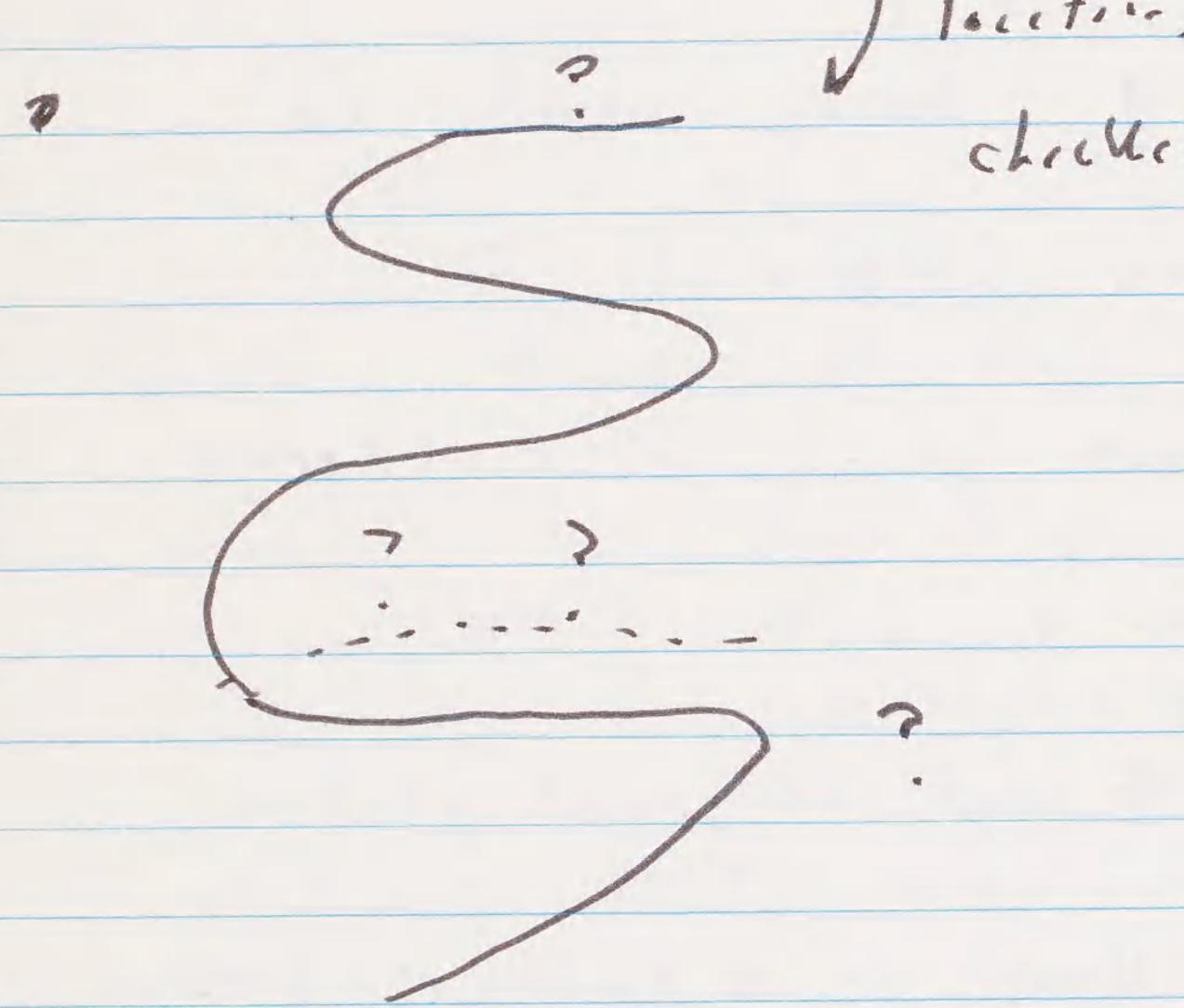
trail.

Tuesday 24 May 745-1245

I check a number of

tree trunks today without hearing

or seeing a WEL.



+ I checked km to a  
side of white trail for  
trumpter approximately 1hr -  
I Ld birds along at  
one point.

27 May - cool breezy 730-3:00

checked first trr. tog at bird

of road - no birds seen.

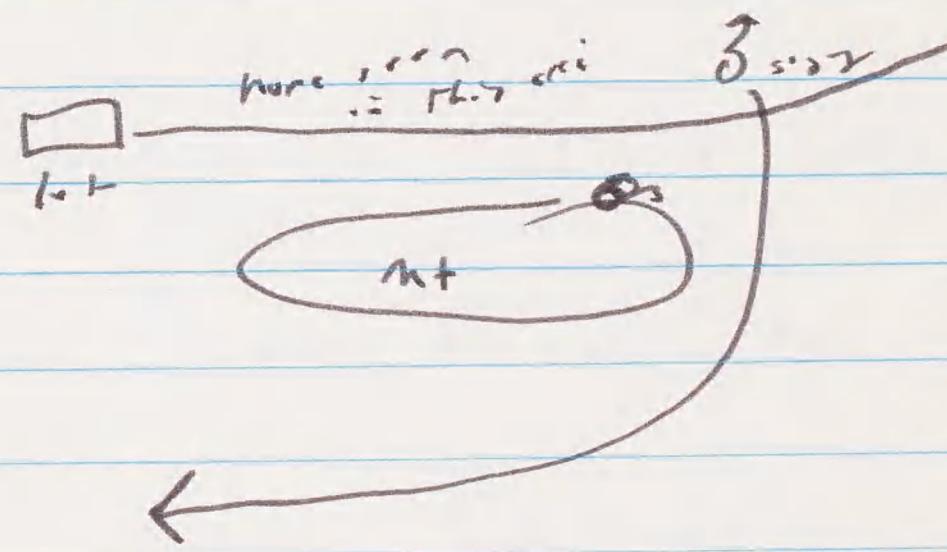
went up to Circle area where I

followed singing, ♂ 15-20' ± c. o.c.

Blbg x 15, Itsl x 2, hy x 2, left edge  
✓ probe x 5 hy 2" - got 2 → 'pillars'.

Went to top parking lot + checked

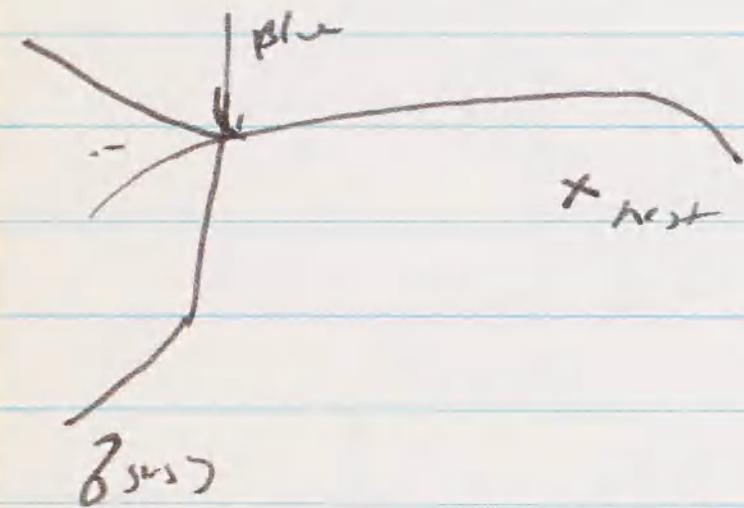
slope below the trail ♂



✓ written for 1 hr see so.

10' Blbg x 5 hy 2" x 1

found nest in tree at  
intersection of Hone Trail & White Trail



I checked slope below  
white trail + then  
I checked slope at first  
bend in road + saw no more

♂ bright in black pillar of sit

or this from trail out of sight

once again at base of small shrub.

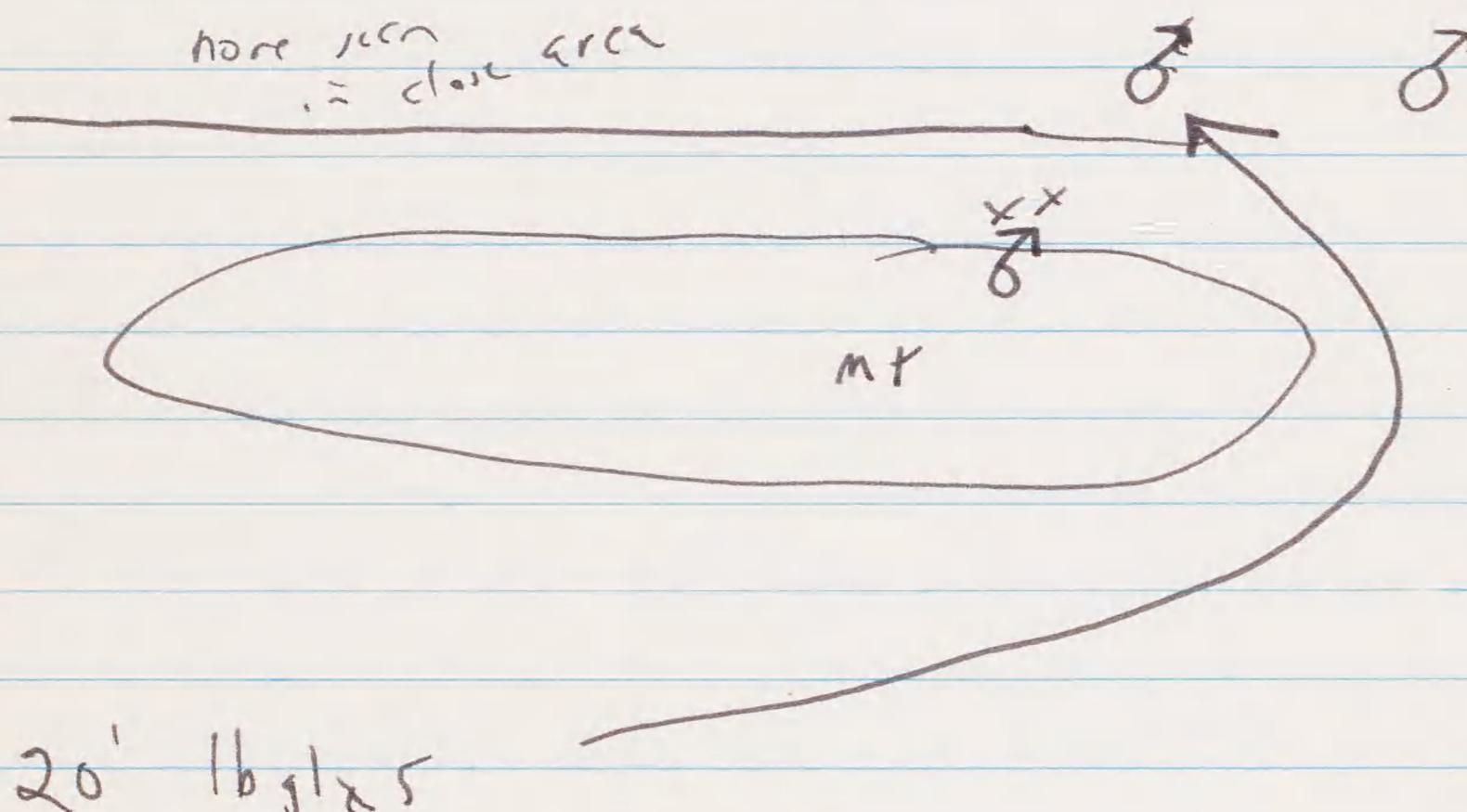
3 juv, 1 hch, (cuhed), 1 egg.

✓ I found singing ♂ on blue trail brd  
• 10' 1bgl x 5 c-shk  
got 1 pillar  
bush glam

28 May 800-1:00 cloudy + cold

chukar slope below white tr. 1

SL + LD 4 + ♂. ♂<sub>sub</sub>



Found f. E. Vireo nest with 3 eggs + 1 bird

eggs

30 May 800-300pm cloudy - showers until noon - then clearing up.

I worked up rd - thought =

ld sisy ♂ along first stretch -

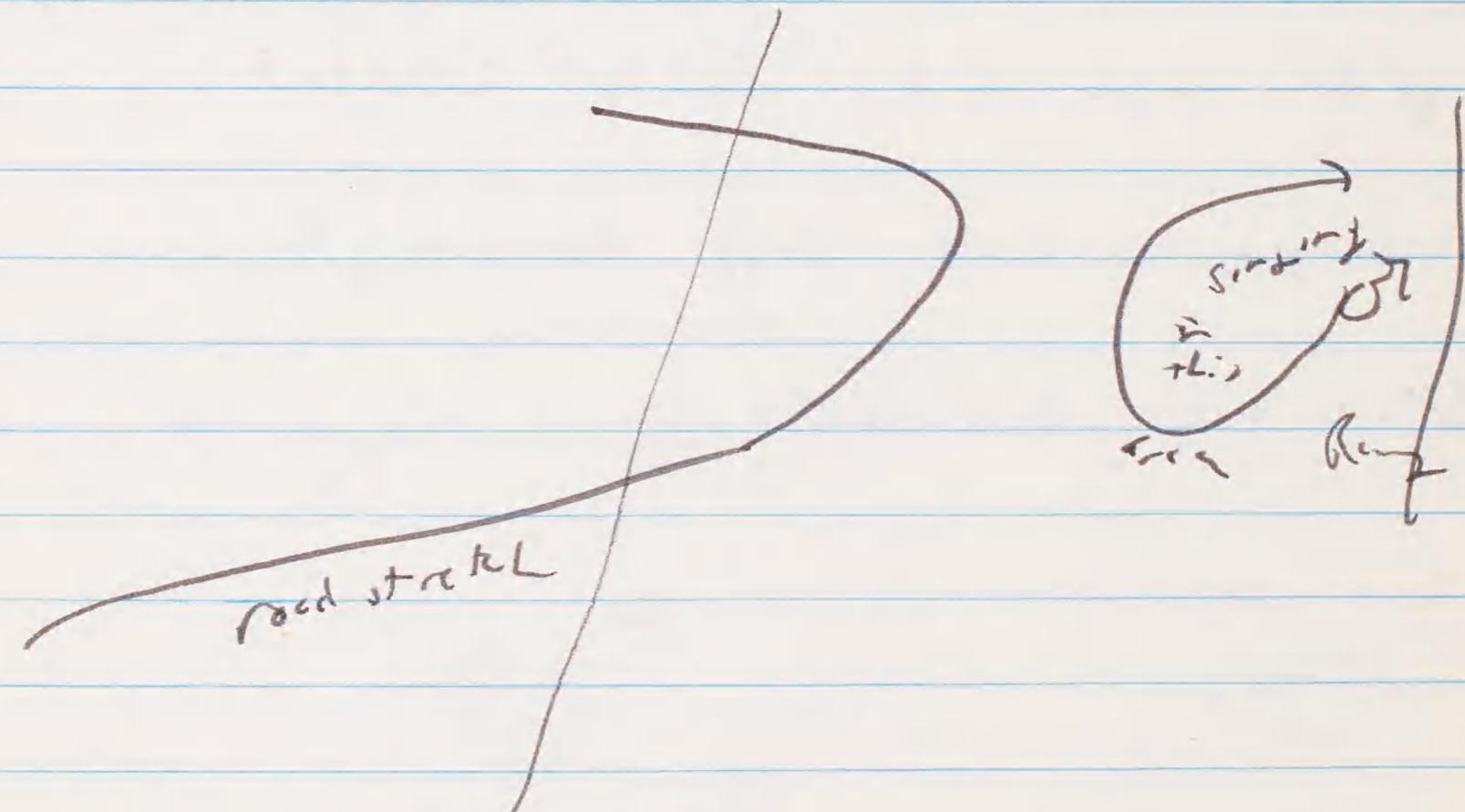
checked "corner" territory + seen

2 new chuk + chipping TL

ld 2 ♂ sisy. ♂<sub>sub</sub> from

wood area

~~initial~~  
overseen changes



✓ seen low in Rd - road rd 10' 1bgl

The 5 sing 20' C.O.U

✓ 1b gl x 5 Dim, lat gl x 1

I drove to top I checked  
area above trail + saw nothing

I drove to top + walked slope

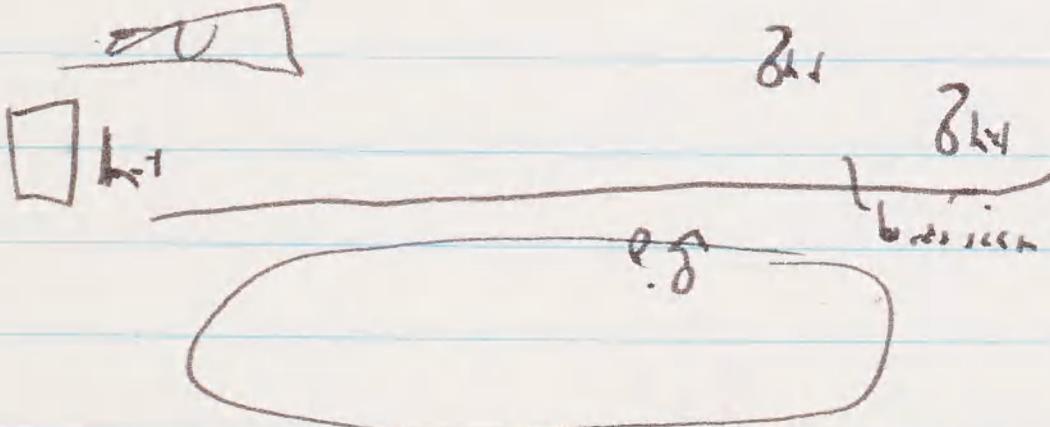
below white trail. hd 4? ♂ is  
l. bird

area - saw bird come from tree  
in underlay maybe off nest.

✓ 20' 1b gl C.O. dead lat (Bch lat

hanging in Oak gl -) + branch gl -

✓ 2nd bird - dead lat (Bch lat) in L. - gl.  
hd 8hd



I took nest at Horse trail + Blue trail

- + two empty + nothing was

straw near opening. L.EV bird + REV

mobbed me 20' - + chucked  
chipping lady

✓ dead lat cluster in Oak (Bch lat)

I found bird at Blue trail  
♂

bird sing in

V underlay (6') 1b gl

nest  
nest - pred. rd.

✓ Hospital

I called 100 times

near traffic circle

31 May 815 - 300

✓ the Top Parking Lot - Area -

overcast to partly cloudy

✓ I watched from Tal-1 slope  
The slope facing S was very flat  
tall couch grass down once -  
S - no Q4.

✓ I walked along slope below White  
trail & saw 2 sets? of  
♂. The first: - one ran  
right out of Laurel shrub. I  
sat down & heard soft chirping  
(clear - like chattering) & LO gl Azuln  
(i.e. thin I heard).

✓ 2nd is 3rd ♂ & its present  
g. & another pretty chirping

✓ bird moved further though

undergrowth - obviously ♂ calls

go up to low canopy.

♂ from undergrowth over  
soft & short grass song

foraging: ~~terrestrial shrub under lbg~~  
~~Area lbg~~  
✓ C. O. lbg & ~~lbg~~ (♀) +  
P. H. V.

It forage for t. pulch.

♂ - dark back, back into back  
to ♀. dark back (back: back)  
~~foraged in back~~

✓ 2 times I saw him perse  
in ground.

I probe oak leaf - got pillar

New Q?? in thicket

May 31 - 1208 overcast

Left census - 1000 level

level  
50 - 0

50 - 4mm opiloid H  
3mm bluish black lb

50 - 0

50 - 0

50 - 0

50 - 7mm gray long hair H

50 - 0

50 - 0

50 - 0

50 - 50 - 2m?

50 - 0

50 - 0

50 - 0

50 - 0

50 - 0

50 - 6 3mm fly H

- 50 - 0

50 - 0

50 - 4mm opiloid

2/1,000

Scattered 50

(2cm woodchip) 11

2mm spider lb

2mm hemip H

6v 4\* 1mm mite, plb

20

15 1mm mite, plb

4mm fly H

2mm hemip H

20 - 0.6 4mm mite, plb

50 - orange 1mm  
blue plb H

Hairy 50

2-2 1mm hemip H

cherry - 50

1mm blue plb H

light blue 50

4mm blue plb H

3mm spider lb

C. O.L. 125

3mm fly H

120 C. O.L. 50

2-3mm blue spider

H + dia

2mm blue H

" 50 - 0

7mm spider H

fly

2mm blue H

Hickory  $\approx 0$   
" 50

1cm right  
-5

oak  $\approx 0$  0

?  $\approx 0$

2cm away, 1b

Maple  $\approx 50$  -0

Sassafras  $\approx 0$

30  
mm top

Hickory  $\approx$  -6

Maple  $\approx 50$

4mm 28mm 1b

Maple  $\approx 50$  -0

120  $\nearrow$  Hickory  $\approx 0$

5

Maple  $\approx 0$  -0

Maple  $\approx 50$

C. Oak  $\approx 0$  -0

Imperial  $\approx 0$  -0

3mm 2mm top 1b

10/15/00

Hickory  $\approx 0$

2-2.5mm 2b

mm black + red  
cathartes hurt 1b

Oak  $\approx 0$

6+

2mm pale dry

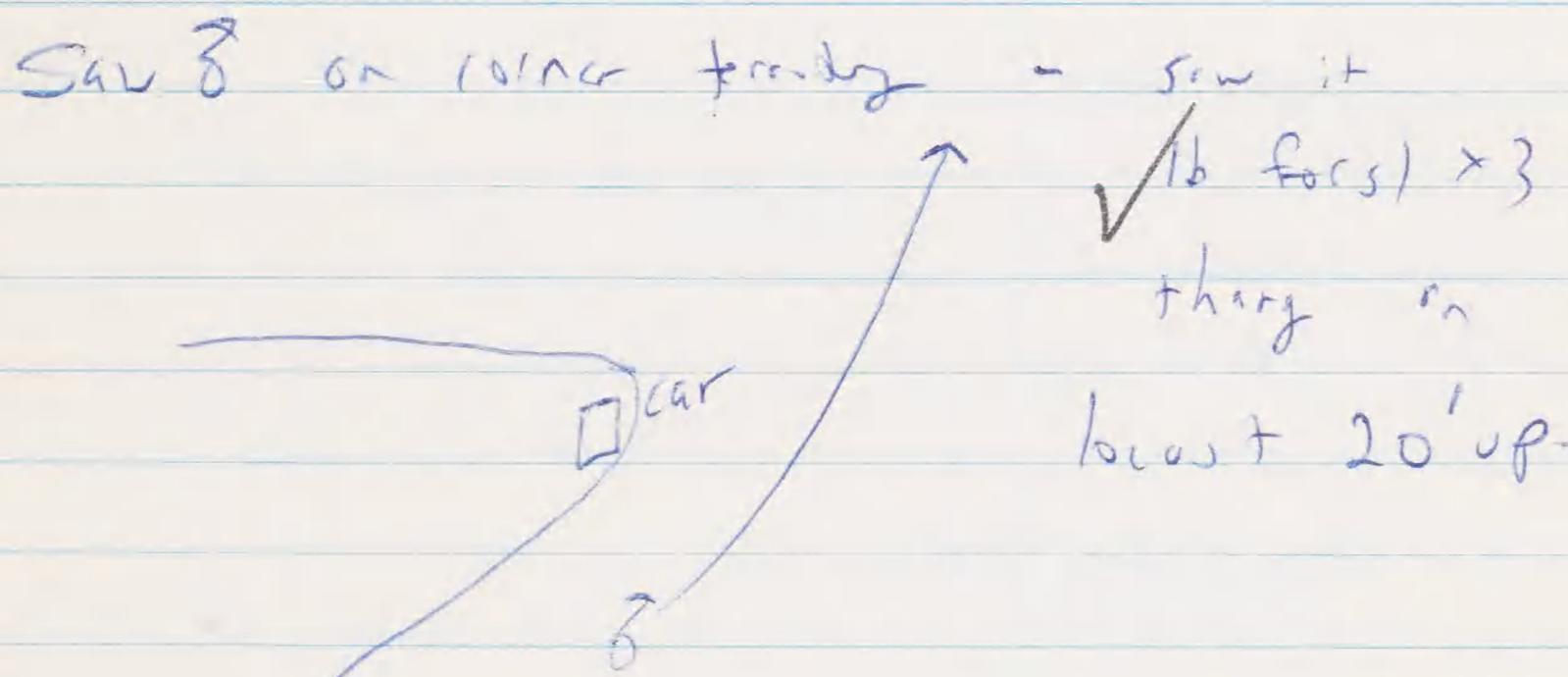
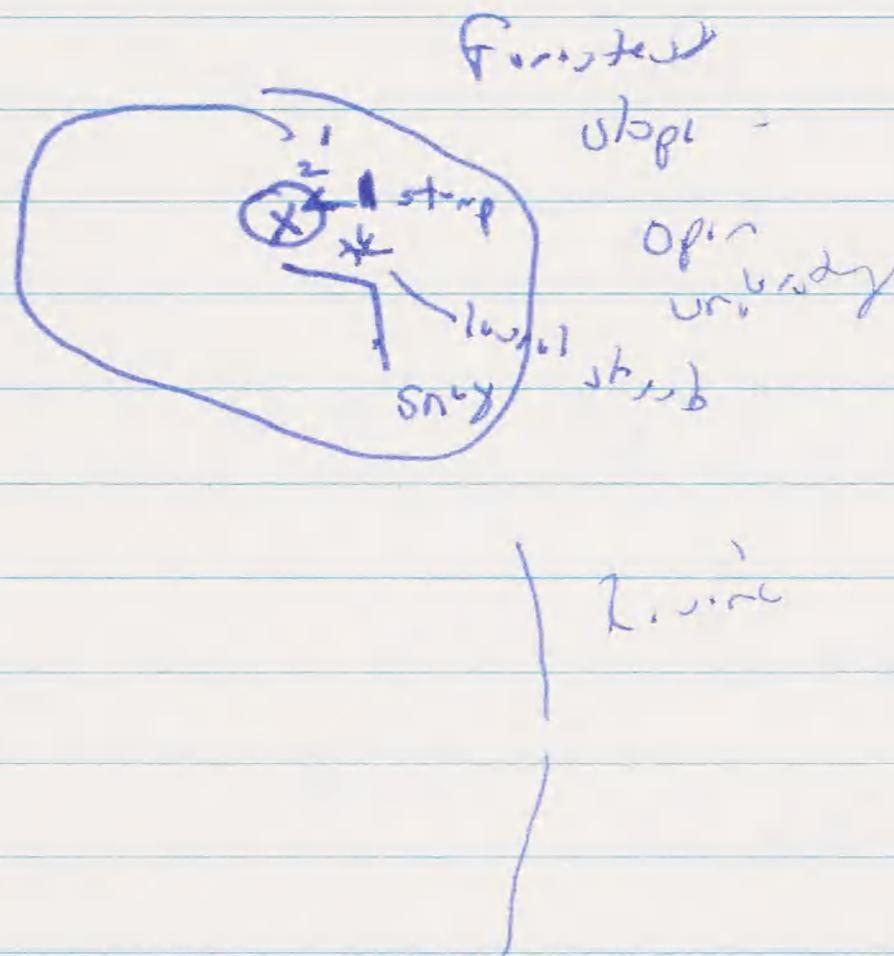
Maple  $\approx 0$

Hickory  $\approx 0$

-

Map to Bear Valley  
NL

2 June 830 -



I check slope below white trail

+ saw ♀ Other Warbler off nose

it was in small trees + foliage

glanced a couple of times (also

creeped in tree trunks)

I watched singing ♂ w/w -

probably the same bird

I followed 5131.

As I walk ♀ was in

chirping softly. Cut start

in bush. ♂ 5 gave short

tail wag.

I also saw a shorey-trail or

flight when I went up to

(crops to feed) she visited

Spot on ground repeatedly -

getting root-h.t. I eventually

found nest at base of

laurel shrub bush finished

4 (nest)  
X sunbird - Klerck  
■ stump

Big Rock

♀ Forged many in shrubby

✓ chirpy tree (1b large 1bgl x 5

15-25' up. as did ♂

3 at base of mountain w/

singing as well.

Initial count

1230 sunny-windy

Beech tree

Maple TO -

1cm thin green

caterpillar 1b

1mm thrips 1b

TO 3mm weev 1b

Hick

C.0

TO 2mm spad 1L

C.0

TO - 0

C.0

TO 1mm larv 1b

Hick

TO

C.0

TO 2mm larv 1b

Maple

TO - 0

C.0

TO - 2mm spad 1b

roll-moth

C.0

TO

C.0

TO roll-moth

C.0

TO - 0

C.0

TO - 0

C.0

TO - 0

700  
C.0

TO

R.0

TO

C.0

TO - 0

C.0

TO

Hick

TO

but cut each sun <sup>accol</sup> tree

Maple

TO

3mm weev 1t

C.0

TO

Spiders

1t

2mm larv 1b

C.0

TO C.0 TO

Hick TO 2+3mm larv 1b

$M_{pl}$   $T_0$  Interv-ade

$M_{pl}$   $\infty$  -

$H_{pl}$   $T_0$  5mm m.L/b

$C_0$   $50$

$C_0$   $T_0$

$M_{pl}$   $T_0$

4/1500

Alurel  
funkt  $T_0$

$T_0$

$T_0$

$50$

$T_0$

$50$

$50$

$50$

$50$

$50$   
 $500$   
 $1000$

$50$

$50$

$\pi$

$50$

$0$

$0$

$0$

1.7 cm th = 6.4

'p.11v

3mm height

50

50

50

50

50

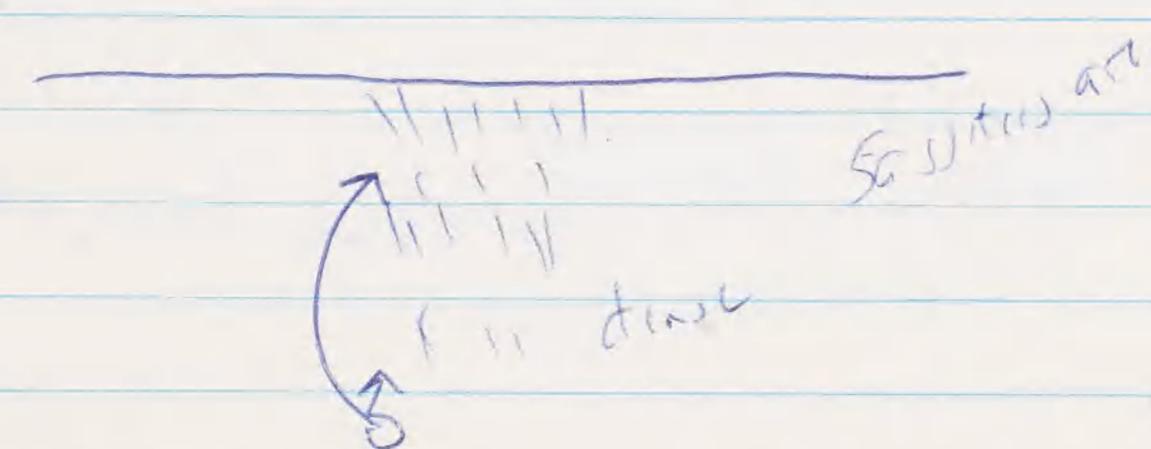
70

2/1,000

saw 5 below white tail singing

underly 6' - found 1bgl x 6,

sub. nut



1/2

checked corner territory area  
& found no warblers

I then checked slope where Btw Warbler.

= nest still had 5 eggs.

To check territory at mid-slope &

few q off nut feed rapidly

6-10' oak 1bgl x 3

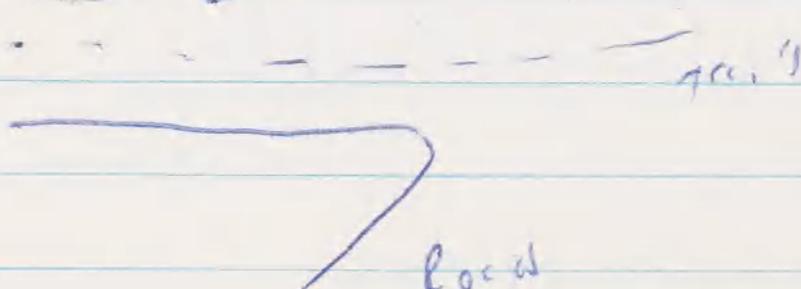
✓

10-12' 15 1bgl (1 caterpillar)  
hang 1b x 2

Planted woodpeckers feeding young - no

planted

♀ (fancy)



# Leaf Collection #3

base trail

5

## Spiders

1mm	III	(3)
4mm	III	(3)
5mm	XXI	(7)
9mm	I	(1)

14

## Millipede

14mm (1)

5

## Grubs

8mm	I	(1)
12mm	I	(1)
13mm	II	(2)
20mm	I	(1)

5

pupae (dep) 10mm (1)

## Beetles

1mm	II	
5mm	I	
6mm	I	

3

# Leaf Collection #4

circle

## Spiders

1mm	IIII	(4)
3mm	III	(3)
4mm	II	(2)
5mm	XXXI	(6)

Total = 13

## Grubs

10mm	I	(1)
11mm	II	(2)

Total = 3

## Millipede

15mm (1)

## Opilions

3mm (1)

Ant nest (one)

with eggs  
and pupae

## Beeetles

1mm	I	(1)
2mm	I	(1)

3

Moth couple 1cm 1

①

1/3 830-1330 mostly  
sunny & warm.

I went up road &  
checked corner territory &  
tricity above path - Lwng ♂

was singing over rain later

in morning - but I saw  
no ♀

I found ♀ & ♂ Lwng

feely in a bushy near path

✓ ~~woodpecker nest~~ (1b) x 5 in

Loc (± 6-10') - ♀ to apply

I checked other nest -

had 5 eggs still - ♀ got off

host & fixed on bark for

several minutes before dropping  
back on.

I check slope over &  
found no more Lwng.

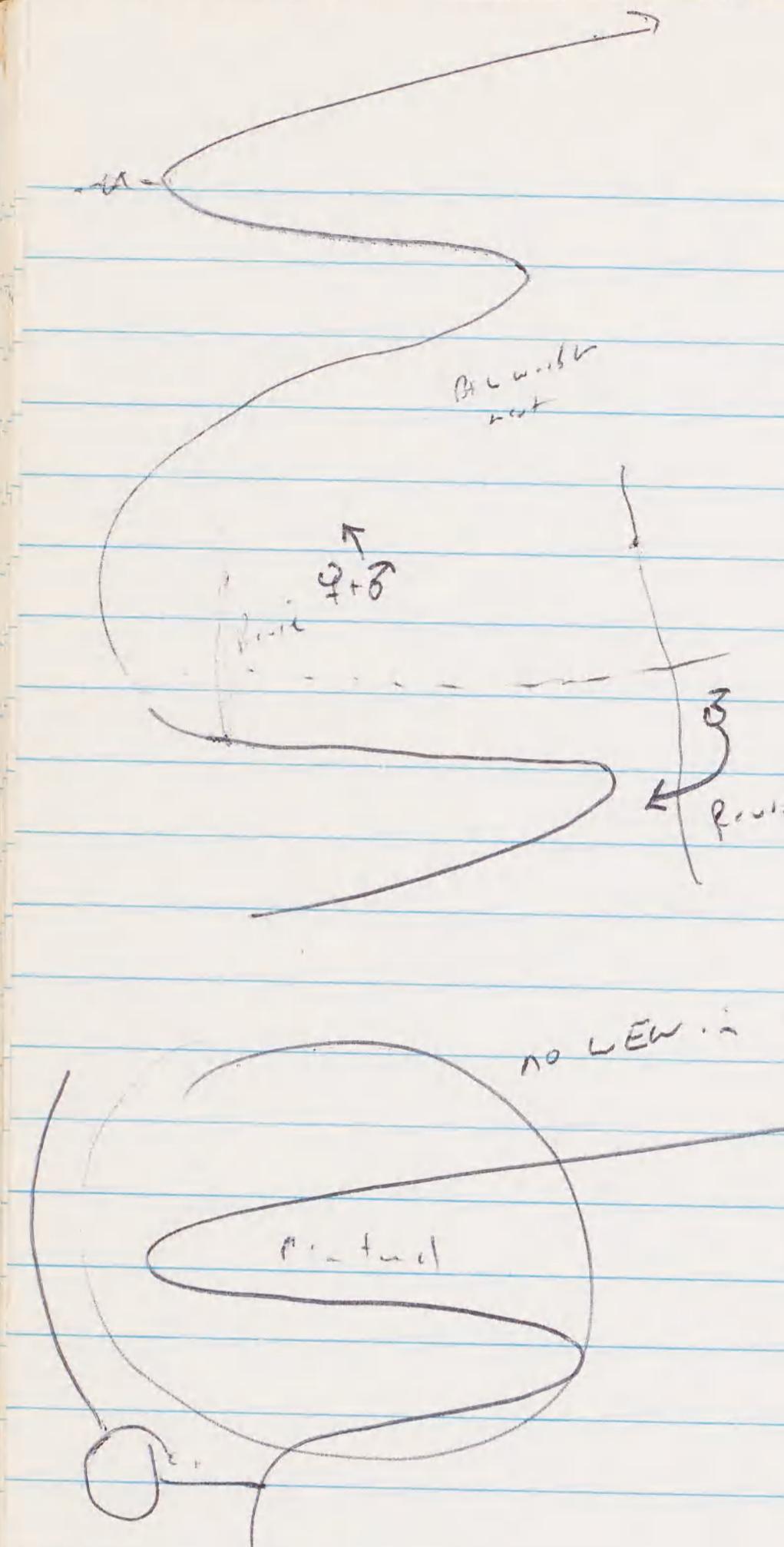
I checked area <sup>along</sup> near Circle

on slope & saw no Lwng.

(now a red snake).

I collected Dead leaves &

first party lot.



5 June 1983 800-300 pm.

WARM 80-85 h, L clou.

Chukar corner terr. hy - ♂ singing.

Chukar slope terr. hy. sun

♀ off nest feeding rapidly - ♀

Juvin sing - ♂ & ♀ were close

♂ gathered ~5-6 green grubs in

bill - couldn't see where he went.

Saw him down slope later.

Can't catch him in afternoon sun

Sing 5 - feeding rapidly - got sick

brown grub & went up slope,

Feeding:

✓ ♀ - locust 6' 1b gl x 5 1b hars.

✓ ♂ locust 6' 1b gl x 5, 1b hars + 1  
1t gl.

Desmodium 10' 1b gl x 3 - chick  
dead oak leaf cluster  
my bee got her something

cowpea 5 - locust 6' 1b gl x 3.

found ♂ in dense Sweetgrass  
thickets below white tr. singing.

I saw ♂ on slope at mtn -

no ♀'s.

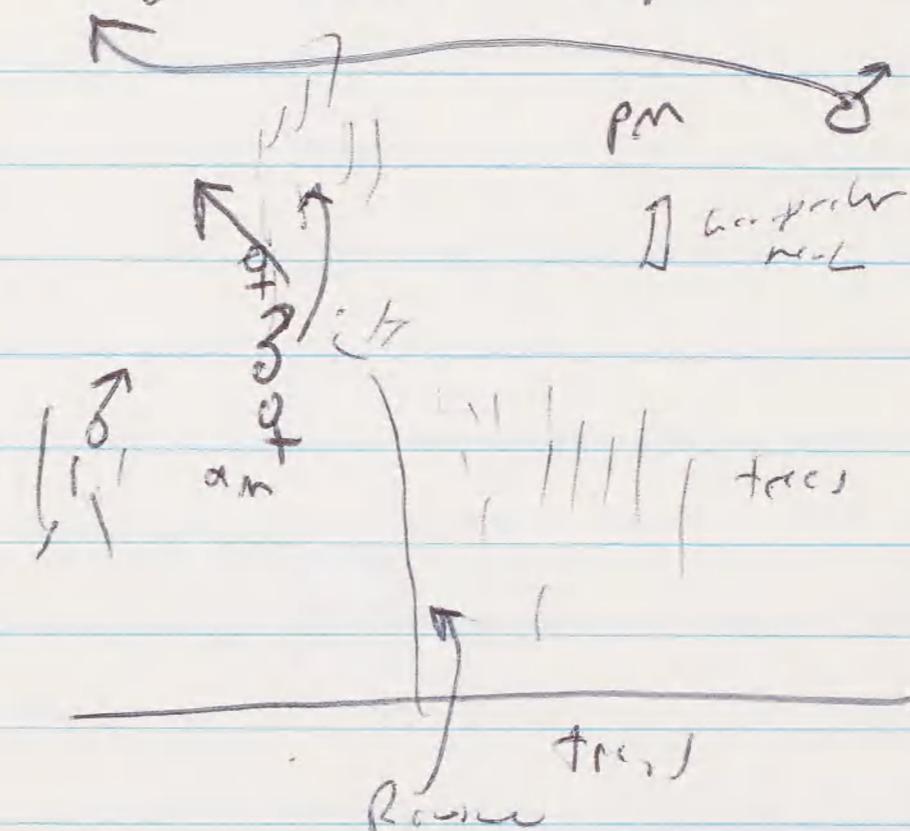
checked nest of built on 1/2

& ~~it~~ it was complete with

no eggs.

B+w warbler nest had 5 eggs  
seen no warblers

Territory on low slope:



1/6 in. thickens

13 T

250 C. O

350 Dgwood

450 P. wood

550 Oak

650 S. S.

750 Oak

850 Oak

950 2m lg. 17

1000 1m-2

1150 Dgwood

1250 2m sp. 17

1350

2 mn sp. 17

3

Ab

14 Birch

15 Oak

16 ? S.

17 ? S.

2mn sp. 17

18 C. Oak S.

19 H. Oak S.

20 B. S.

21 S.

22 S.

23 h. m. S.

24 1m, 250

25 S.

26 h. 250

1cm + 0.1. 1+

41mm m. 217

44mm sp. 17

27 1m + 50

150 - 0

28 50

3m + 1m + 1b

6 00 - 0

29 50 - 1m + 2

7 00 - 0

30 1.0 0

8 00 - 0

1m + 1

9 00

1 3m + 1m + 1b

1 50

3m + 1m + 1m + 1b

10 00 - 0

2 00 -

11 00 - 0

3 00

3m + 1m + 1t

12 00 - 0

4 00 - 0

13 00 - 0

14 00-0

6 June 930-330

15 00-0

Went up with Kim Young.

16 00-0

Spent time at mornins

17 00-0

staking out slope next

18 00-0

We narrowed down location

20 00-5

on upper slope sin 8° from

✓ locat tree - 1bgs x 6 -

1bhrs x 2. If 8 sin start down

on way to next area

checked next on side of Sjvln

mt. of sin 20° in cherries

See no foraging went

all over slope but no loc.

♂ on lower hill on white trail

quiet.

Found new ♂ in underlay

below <sup>upper</sup> parking lot. Followed it

as it sings in a small

✓ circle. 1bgs + 4 6' in Lavel.

Went back down + found

nest on lower slope -

One day old rubbird + 2 ss + 1 warbler!  
egg

♀ shot off nest on

ground silently.

7 June 930 - 960

checked ~~on~~ white trail -

♂ sing below sassafras grove.

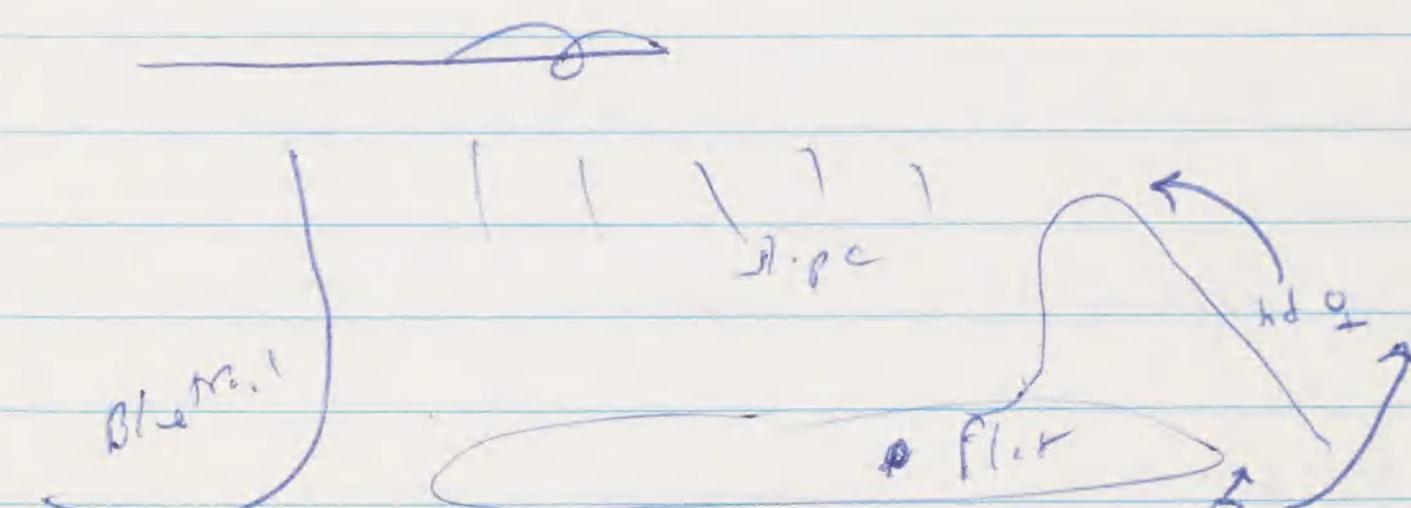
didn't see it.

♂ sing at parking lot area!

cut to black trail + checked out  
territory at corner black trail -

no hay.

See pair on slope:



♂ giving sing + short

sing from underbody - b.+L

birds chipping.

✓ 4-6' laurel: 1bgl x 8 direct lat (Osh) x  
↓  
12cm caterpillars, 5sec 8

I watched ♂ on

territory below parking lot.

I've never had this bird

below. ♂ song sporadically

mainly from low shrub

at one point it came

close to ground - I watched

this was a bird attack

later + gave short tail -

1.4m above to chick out

Foraging:

Laurel 6' - 1bgl x 4

✓ C. oak 15' 1bgl x 2

Laurel 6' 1bgl x 2 - pillar

Laurel 6' 1bgl x 4

7-2' off ground 1+ glcm  
ground forage.

Bew Bewbler - 4 new babies! + tess

DEW no 2 - slope - 3 new babies - 4-5cm  
+ destroyed warbler egg.

Inset (cont) - broad leaf plants

1 ♂ - 0

2 ? - 0

3 Myrsinella *1 cm mouth 1b*

4 Bazzania - 0

5 Myrsinella

6 ? *2 mm mouth 1b*

7 ? - 0

8 ? - 0

9 ? - *4 mm mouth 1b*

10 ? - 0

11 ? - 0

12 - 0

13 - 0

14 - 0

15 - Immature

16 ♂ - 0

Myrsinella

17 - 0

18 Myrsinella *4 mm mouth 1b*

*3 mm long mouth 1b*

19 Myrsinella *Immature*

20 Myrsinella *3 mm mouth 1b*

21 ♂ - 0

22 ? - 0

23 Immature

24 ♂ - 0

25 Myrsinella - 0

26 - 0

27 ♂ - 0

28 *be* *in*  
*beetle*  
*larva*

29 *1/4* *5 mm*  
*beetle larva* 1b

30 C. O. 4

1 ♂ - 0

68 Suschuet - top. 830-300

I checked out territory below

top parking lot. - ♂ was in

area growing short song but

I didn't see or hear ♀.

✓ I saw ♂ purple wing bird in  
Cherry tree parking lot 20' - 1bgl, 1berry.

I check territory below white pine -

hd ♂ + probably ♀ as well -

below sassafras grove. - that's all.

Didn't see or hear ♂ on slope

at mtn.

at beginning of horse trail (JUL)

below parking lot - hd ♂ probably

♂ from territory below lot.

✓ singing from tree - 1bgl x 2.

At <sup>beginning</sup> of horse trail +

blue trail (down horse trail 120 m)

✓ I saw ♀ feeding in trees (1bgl x 16

1bgl x 1) 1bgl <sup>1cm</sup> large spot pillar from

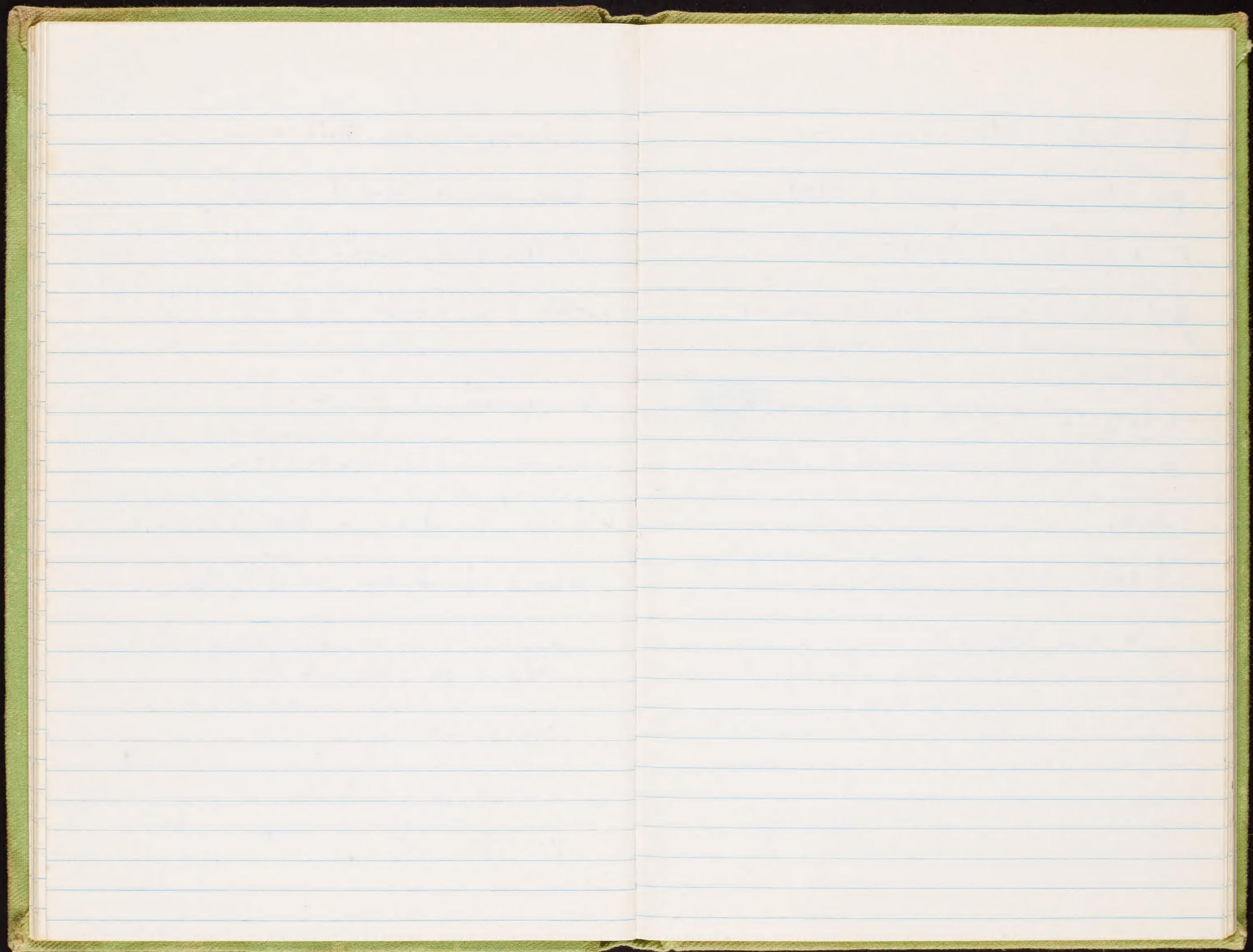
pet. 1c.

followed to left side of

fr. 1 + 1. + 1.

went to pine I saw

yesterday at end of



blue trail. After 1 hr saw

par - they were quiet + tame

& I got lot, + forgive) data

✓ 1b gl + laurel x 20 Dead leaf probe x 5  
(got one thing)

1b holly 6" x 1

1b holly x 2 - got 2 green pillars.

sew leafy & one bird sunned  
itself.

♂ B+w warbler was feeding

a newly fledged bird

June 1 200 - 3:00 pm

I checked territory below parking lot  
♂ was singing - further down slope  
than I had been looking for nest

✓ 1b 30' - oak - dead leaf check → Laurel 6'  
(holly x 3)

We (Jim Lynch + I) checked territory

below white tail - ♂ chopped in

me after 2 was mobbed by chickadees

it was initially in 1' sunken

✓ 1b 30' - laurel - dead leaf check  
flower glash.

I found it in the same area again.

♂ on slope of mt - was silent

nest by white tail had 3 eggs +

♀ incubation.

The big news is that pair  
at beginning of white trail were  
heard from - 3 wks. singing together  
in one & lowly bush  
he had up as well.

it flew well - flew well

to follow

But warbler nest was empty!

I checked area at Harriet's

Blue trail junction. + none

nest

of Blue trail: for 2

✓ saw singing ♂ <sup>10'</sup> in Pine tree (bully x 10)

foliage glam to), I see

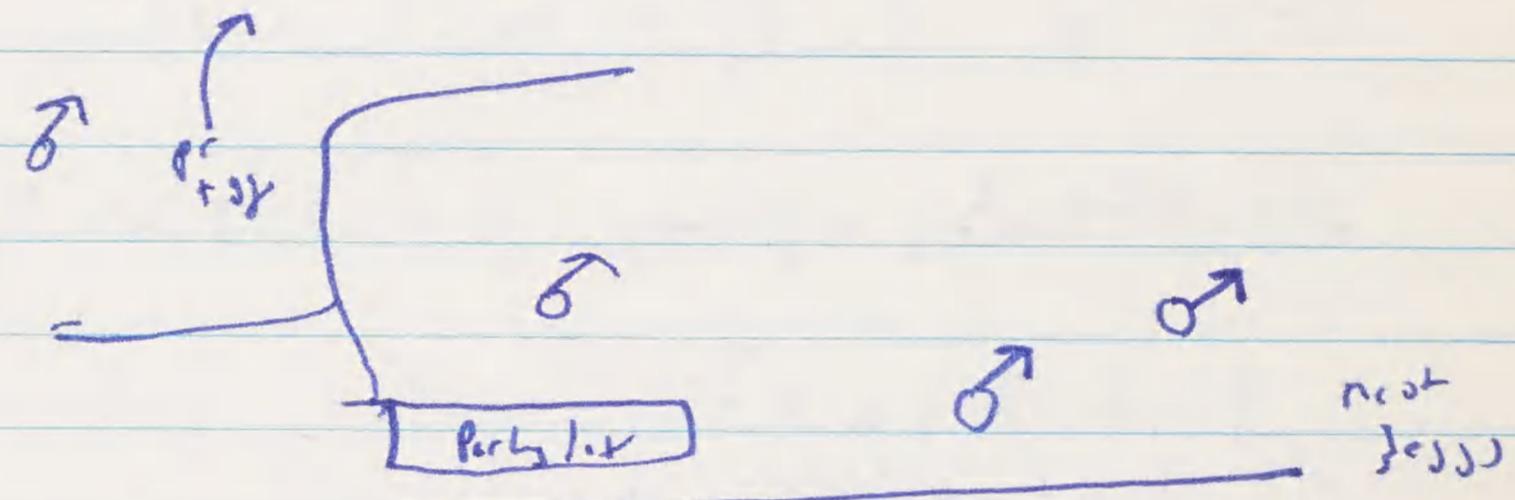
✓ bird in same area I followed

pair regularly - ♀ in lower - (bully x 3).

an 15 min later I saw them

1 + fledged baby (short tail - still

short bill &  
some head down + baby lips).



12 June - Hot First truly warm day

I checked corner frtgy -

root up my h. & l. chip note

at bird sun pos; truly warm

0-6' up quality + timely nut

sawed (cutting + pruning) (8' saw briefly)

✓ Grand fir x 3?

1b<sub>1</sub> 1 unripe tree (b, l, t)  
1b<sub>1</sub> 1 unripe

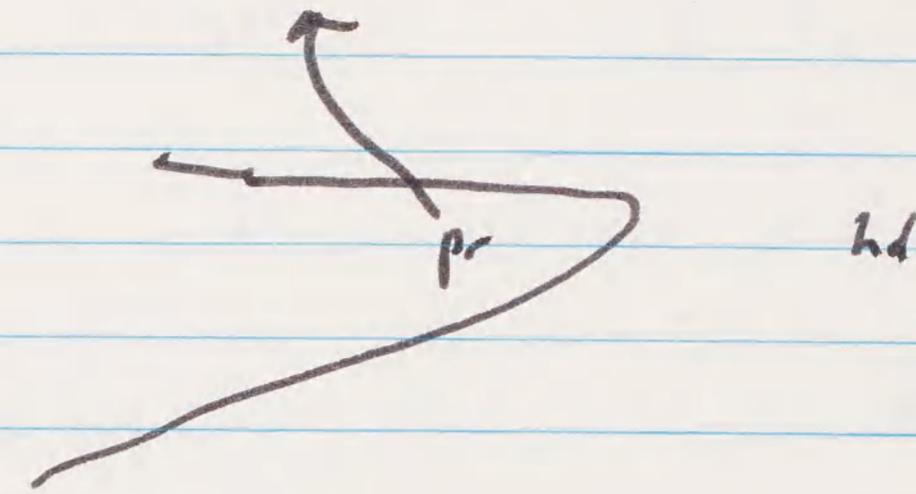
(+g) - honeyuckle vine

brush gl v2 (1 p. l. v.)

P. in. tall gl v2

my be slope-nut birds -

nest was checked + was empty.



check slope frtgy below what trail -

no hsg. Also no red fir

frtgy on side of mtn.

+ hd + sun 5 on frtgy

below partly lot for tree on h -

percolate

✓ Oak 30' 1b<sub>1</sub> x 7

Mgh 20' 1b<sub>1</sub>

larch 4' 1b<sub>1</sub> x 7 flwr probe x 3

13 June

N. sign of 4 - 5 h.p.

goats found in circles "

I followed.

8 ears + pretty sooty  
briefly

no mole

white tail

no mole

lured areas

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

marking it

2 mm hairy, 1 b, 4 mm up, hairy 1 c

3 mm fly 1 t

3 mm fly 1 t

3 mm fly 1 b

" " 1 b

" " 1 b

" " " absent edge

4 mm hairy 1 t

13 June hot 880-230  
7 chick Kirby below park lot

3 hrs. in morning + 1/2 hrs.

afternoon. lot of action on  
upper slope where I suspected  
nest might be - ♂ sing -

then short song + 2 sing  
✓ briefly [Oak 20' 1b g/ x 2)  
sits small pillar

saw bird here several times.

I wandered on slope below  
Horn trail + BL. trail

1st Br. # sun ♂ sing

✓ 30' in oak 1b g/ x 2  
big wood feed oak leaf

sun + hd pr + st trail  
on double way down slope  
down blue trail. ♂ sing  
periodically around young.  
young - w. - in front on  
sun - perched in tree +  
fly up into oak. - high  
twittering contact note to  
parent.

14 June - sunny, hot 830-430

I check territory below white tail

This morning. ♂ sang +

✓ I wait 25' ± 0.0 (hang on DL 0ch)

then I see peregrine 4 with

green grubs in bill back in hand 3-5'

16 gl x 4 16 lg x 3 Knock + day to  
ground 2

I spent until 2:00 trying to

see where nest was + only

11 S - each time

at trail 2 saw broudy ♀  
fly across. I followed many

first - ± 10 minutes I see. I

find 114 times, A. + probably

first more = 45 times. + k + drop

✓ to ground once for a pil. v.

2 times 1t gl., 2 times 1g

+ 5 times hig + 100 times 1bg (

mostly small (I see only 4+

pil. v. go down) I see 5 nests

+ see broudy ♀ Bt h w/w

bark - scanning

Loc. Collection 5 ~ June 5  
at 1st parking area.

Grubs 4mm 1  
10mm 4

Sp. lar 1mm 2  
4mm 9  
7mm 3

Hemiptera nymphs  
2mm 1  
3mm 2

Beetles 1mm 2  
3mm 2

Worms 6mm 1

Ant 7mm 1

M-tL 1mm 1

1mm.

Loc. Collection 1 May 19  
Tip poly lat

Sp. lar 1mm 2  
3mm 1  
5mm 26  
7mm 5

Grubs 1mm 82

fly 2mm 2

Yellow jacket

2

Grubs (Heg)

4mm 1  
8mm 2 (green)  
12mm 1

13mm 1

Beetles

1mm 2

2mm 1

4mm 1

5mm 1

8mm 2

leaf hoppers 6mm 1

Sp. lar 5x1mm 2

Sp. lar 3x2mm 2

Misc. egg 1mm

beetle larvae  
3x5mm 2

Worm, 1 6mm 1

May 26 Initiation 2

Spiders <sup>inn</sup> B

8mm 5

Bricks

1mm 3

9mm 2

7mm 1

WCCW 7mm 1

Stops?

4mm 4

5mm 2

grub 12mm 2

13mm 1

8m 1

Mite 2mm?

1m + 3m

11mm 5

15mm 1

17mm 1

5 July 200 - 530

Lococcus

1 <sup>Loosey</sup> ~~Beet~~ -  $\phi$  4m long 1b

2 " <sup>2cm diameter</sup> 1t

3 " - 0

4 M. pl - 0

5 " - 0

6 " - 0

7 " - 0

8 Sweet corn

9 clay <sup>5mm</sup> ~~small~~ 1t

10 " <sup>thin</sup> ~~small~~ 1t

11 M. pl <sup>1cm</sup> ~~honey~~ 1b

12 M. pl <sup>1mm</sup> ~~small~~ 1t folded

13 M. pl

14 M. pl

15 M. pl

16 Sweet corn

17 Sweet corn

18 chick 5mm bowl 1t

19 M. pl -

20 clay - 5mm brown or brown 1t

21 M. pl - 0

12/1500

1m - 0

Level (or 2)

1 0

2 0

3 0

4 0

5 min bump 1b  
2 min sec bump 1b

5 0

6 0

5 min bump 1t

7 0

8 0

9 0

10 0 1 min 1b green bump

11 0 - 2 min split - red  
1 min w.p. 1t

12 0

13 1 min split 1b

14

5 min bump 1b x 2

15 0

16 4 min high bump 1h

17 1 min green bump 1b

18 1 min op. 1. ong + 1t

19 0

20 4 min tr bump 1t

9 / 1,000

26 June 10-300

I worked on trouting below parking lot. I saw ♂ in semi-rail by gap + it fed

✓ 4 times on 1b 3' up. I check

slope trouting below Horse Tr. 1 +

saw nothing. ~~I also checked~~

♂ chased redbird singing sweet song

Later I saw ♀ redbird in undergrowth, not

27 June 8-200 looking for nest

I worked on trouting below

parking lot + located nest to the

✓ actual thicket - I saw bird 1b/s 10 times

in thicket + peeked + small dead leaf

without getting anything. I

found nothing on slope by Horse Tr. 1

Lots of chippy + some vs by ♂

I also checked slope by  
lower pinon area + found nothing

28 June 28 300-500

Hd + seen 1 vireo in the  
gap below parking lot - today

I heard no singing at all even  
when I approach nest area.

no foraging. Nothing on  
slope territory

29 June

broad at 2 juv.  $\approx$  2 w. old  
(from middle of postjuvenile molt

(almost full grown tails) -

on white tail nest in Socorro  
Crave.

Parents made frequent 1-5 minutes

probably mainly ♀ -  $\approx$  LJ

♂ singing briefly. Both young small  
prey - mostly green pillars.

✓ ♀ found on 1b11 (17x mainly) in

lure - saw 2 dead but chicks +

one large at D.L.

babies present + explore rapidly

I see them both pull at

20+ different branches, 7 dead

leaves + 3 live leaf let

clusters - they ~~are~~ pulled +  
grabbed at irregularly on bark.

I see 1st opinion of leaves.

they seldom followed adults

to find the tiny meal

slowly staying in one place

then halter - perhaps in response  
to my presence.

29 Dec live leaf clusters

1 ♂ 86 - Mistletoe

2 ♂ 0.02m

3 ♂ 1.04m

4 ♂ 5.0 5.0

5 ♂ 1.04 ~~some lumpy stuff~~ 1b

6 ♂ Mistletoe -

7 ♂ -

8 ♂ ~~2 in green grub 1b~~

9 ♂ - ~~2 long green grub 1b~~

10 ♂ Bird

11 ♂ (Larva)

12 ♂ ~~mn light green 1b~~

13 ♂ ~~24 1.5 in green grub 1b~~

17 00

18 00 Maple -

16 00 - 34.00

17 00

18 00 Maple

19 00 Maple

20 2 3m spruce 1b

21 ? 3 adt + 1 myrt

22 C.O.U - thin green long 1b

23 0.4 - 0

24 C.O.U

25 C.O.U

26 Maple 00

22 chestnut

28 C.O.U

29 00

30 C.O. -

13/1500

Larry

1 50  
2 50  
3 - 0  
4 0  
5 0  
6 0  
7 0  
8 0  
9 0 } Im up. head 1b  
10 0  
11 0  
12 0  
13 0  
14 0  
15 0  
16 0  
17 0  
18 0 } Im down 2nd 1b  
19 0  
20 0

1h, 110

July 7 continued

I watch WEW family along

Blue + white trail. P. + 2 ygs.

The young are essentially adult ±  
plumage + are distinguishable largely  
by vocalizations + behavior. They are still

fed every 10-15 minutes. They  
covered the same area they did last  
week - staying low in laurel understory.

Juveniles still remained localized  
+ parents forced out to get food -  
Given the dense scrubby visual contact  
seems unlikely. The ♀ looked at  
one dead oak leaf, but on trying was high

I saw 7 such flights - 7 of which  
✓ were successful (2 for lygocampidpillars)  
7 were at laurel + 2 at oak.

The young attempted flight at  
dead white laurel 5 times - by 3rd  
attempt - 3 were oak + 2 laurel.

I saw 25-30 flights at laurel  
leaf bottoms - some were successful +  
2 back slugs. Juveniles tumbled  
to ground 2x + attempted to  
hurtle down.

I heard singing by ♂  
but no singing

At first the group seemed  
locally associated with  
chukars. Later I saw  
♀ glen feed but not  
to feed young.

I checked out birds by  
clearing ~~← seen~~ below  
�ly lot. But time into squab.

pair was feeding two <sup>†</sup> birds

in dry thicket (they went

to tree shrubs) I only had

warbler begging chips - no (verbally)

✓ adults picked at duck (verbally)

7 times - all out - only the bird

hung over to peer in left.

if I b gloried & nearly of  
clearing shrubs 15 times & got  
one spiliorix & bring to young

Young must be quite young.

6 July 1-5 pm

I checked along White +  
Blue trails + down slope from  
blue trail for LEW. One  
mobbed me in area below  
parking lot - but I saw no  
foraging.

I found a family group  
(2-3 ygs) near top of S-slope  
(Red trail). Initially an  
adult joined chickadees mobbing  
me - in dense scrub growth.

It followed it to family chick  
was in level under-story. I  
followed into gap + then  
they went into tree canopy.

The young were old + indistinguishable  
from adults - feeding by parents  
was infrequent. + all birds  
fed actively. At the association  
was loose with parents

usually in different trees

✓ from yngs. I saw 2 died last  
week (no success) + 8 1/2 grown -

2 to Oak, 3 to larch, 1 to grape  
+ 2 to Apple tree? (old  
Orchard). Adult carried live  
beetle to feed.

On backside of Mtn I saw  
♂ with green grub - 1 1/2 gms  
~~tree~~ cherry. It was probably  
✓ going to a nest somewhere.



Percent  
Insect biomass 1983

Sample May-June

1a 91234 1021 Sample: 100% 0.0413

1b 1028 ? ?

1c .106 .024 .026 0

1d .046 .001 .034 ♂

1e .057 .008 .025 0

2a - July

2a .194 .052 .051 -

2b .153 .028 + .002

2c .229 .034 0 tru.

2d .2420 .056 + .0001

2e .2366 .612 .005

2f .2420 .056 + .0001

2g .2366 .612 .005

2h .2420 .056 + .0001

2i .2366 .612 .005

1/4 July, insect census

1 Myr - 0 28.70

2 " 4mm + b 79 Myr - 0

3 " - 0 30 Myr

4 Chrysomelidae 1b 20% 1m

5 Myr 20% 1m

6 " 0

7 Myr 0

8 " 0

9 A 6.0, m 0

10 " 2m, 1m, 0

11 Chrys. - 0

12 Bass. 0

13.0, 0 20% 1m, 1b

14 C.0, 0 longer than 1b

15 Chrys. 0

16 C.0, 0 longer than 1b

17 Myr - 0

18 Myr 0

19 C.0 - longer than 1b

20 " 0

21 Myr - 0

22 " 1m, 1b, 1t

23 Chrys. - 0

24 " 0 - longer than 1b

25 Chrys. - 0

26 " 0 - 7/1500

27 C.0 0

Lanai

1 D

2 D

3 D

4 D

5 D

3 min height approx 1b

6 D

7 D

8 D

2 min 2 min 3 min sub

9 D

10 D

3 min height approx 1b

11 D

12 D

6 min " " " 1b

13 D

14 D

15 D

16 D

3 min height approx 1b

17 D

18 D

3 min height approx 1b

19 D

20 D

3 min height approx 1b

21 D

8/100 0

7/19/83

Brood -

first 4 bgs x 3 C

4 bgs x 2

different ages

stein height 60 by

From 250-470 I followed the brood below the parking lot. I found it in brood below the gap, following it S. N. about 70m. into a very dense gap. The birds were a little (2-3 days?) older than R+M - in heavy post-natal molt. P-l-mix was pretty + head + headless were adult-like. They were relatively quiet + still compared to older fledglings - I saw only a little "begging" behavior. I percent fed if went on long forays or if 50% of young.

## Transcribed Notes

Because birds have migration timing  
Saw 100+ birds - quite local  
migration type - not the adults

The upland 0-20' of mtn  
✓ 5-10' I saw 25+ birds -  
- 10+ which were eggs or 2+ hatched

✓ Saw 100+ birds, 10+ were  
eggs, 10+ were 5+ hatched.

✓ Saw 5+ birds on a ridge, 10'  
10+ were 10+ weeks old.

7 oak chicks + 3 downy

✓ 10+ oak chicks - big pillar  
one hatched. One 10+ weeks old.

Spotted - abundance of

log - 20' high - down tree

Spotted - 10+ birds - 10+

nest & found - 6+ times

10+ glove-hawks - obviously hatching

10+ white-tails - 10+

dropped to ground - 10+ ground  
nesting pairs - 10+

20+ doves - 10+ were  
nesting.

15 June 9-900

I check territory below parking lot.  
♂ was singing as usual but I  
failed to see ♀. I then check  
slope territory below white trail.  
♂:♀ interaction - like yesterday

♂ 20' oak branch - 10' x 3

switched back - earth like a BHW.  
1lb gl - no ♀.

Later I saw ♀ - also trail +

✓ in trail 3' 1lb gl x 3 - got one  
pillar.

I saw ♀ (likely pillar) on trail

territory at 3:00pm + she 1lb gl x 7

✓ in trail 3'. I saw ♀ on bird  
off nest!

I also saw B+W Warbler

territorial borders dispute

one ♂ gave a chrp

staccato chrp + it follows.

two slurred + b.t

June 17 800-330

I check territory on slope

below white territory. As in

put two mornings, the ♂ was

singing close to Newbury 85 -

but this upper to be 2

close neighbours.

Songs are interspersed with

the canary-like song when

♂♂ are close. 2 juv ♂

✓ 1b 1t 4 in Alder &

near leaf forge. I heard

chipping of adults from

territory closer to

packing lot on the

same slope - but I didn't

see the birds (♂ started

singing).

2 chicked territory below  
perky lot + ♂ was singing

and dropped into barrel  
1b 51x7 4' up  
1b 1c 4" 1  
get one pillar

a) Well, he didn't see it.

I chick slope below horse tr. 1

neighborg ♂ sang + 2 h<sub>d</sub>  
(only t.kc sing on<sup>r</sup>.

but I didn't see anything

I found a pair at Rocky

~~✓~~ Your look on white trail of Ibul x 2 is

Screech 6' + fed a very young  
Pileolated. 5 sang briefly.

q had a beetle or spider to

Since b. h. Baby <sup>pink</sup> ~~pink~~ ~~pink~~  
still on level branch

June 18 830-430

I checked breeding below  
white tr. (3 hrs) 8 sets

22 June 1230-1730

I then spent 4 hrs on

territory below parking lot

I saw ♀ off nest - fast feeding.

1bgl in laurel x 10

Substrates 1bgl x 6

curled leaf pack x 2

✓ watched for it mupped 5-7

short song - but lost it

& didn't see it again.

6' dropped

to ground  
once

parking lot for several hrs -

the birds were obscured together

going up slope + I also saw

them near the parking lot -

one my huc had caterpillars in

b.11. I found nest

with 000 b-t its probably founders

23 June 800-400

I chicked briefly below

perky lot. Saw birds, gain up  
slope 2-3 times ♂ sang

short song & caged very hard

✓ times. of w w 3' in Azalea.

I saw 7 lbs in Azalea

(1 pillar) chick on dock

litter cluster (no hazz) looked

on ground once. I saw a

pair of ♀ on slope below house

tr. 1 ♂ had pillar in bill

of gut off next - 2000 w

20-30' in oak +

checked 7 dead leaf clusters

✓ in a row rapidly

I later saw 9 in same area

✓ I also saw 5 dead lbs, 1 & 4.

June 24 930-1230. very hot

didn't see birds on house

tr. 1 slope despite 3 hrs

search I briefly saw 5

on slope below perky lot.

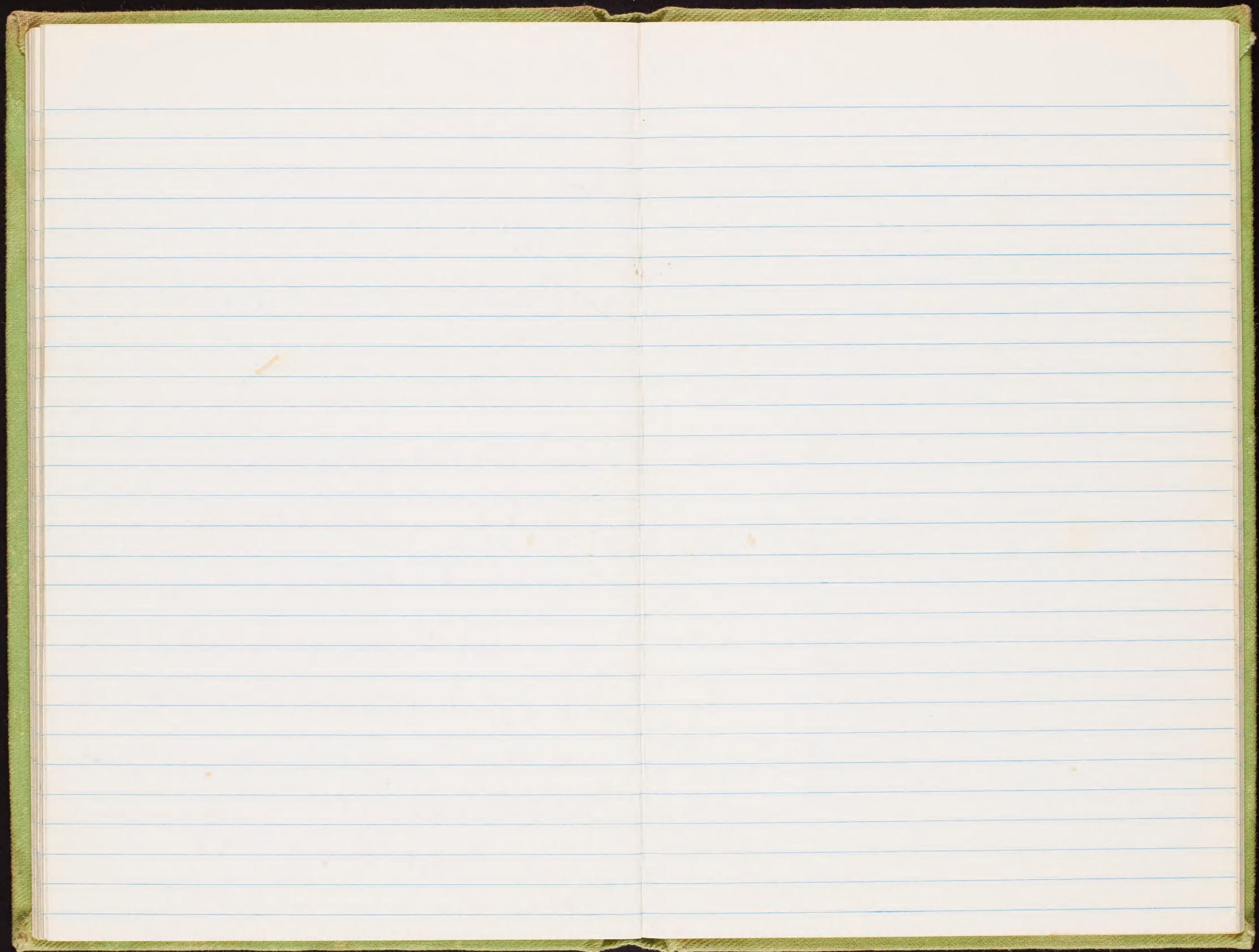
[I saw B & W Wibler ♂ lbs 4

& chick on dock, also

some leaf litter on house]

Got Merle & Robin today

from nest below shrub tr.



## Octad left side

Simple - non derivable on 2nd

3(3)	2	5	2	4(1)
5(3)	7	5	2	4(1)
6(3)	6			
4	4	5	5	3
4	7(2)	3	4	2
3	4			
+	3	3	3	3
1	6	5	3(1)	3
0	8	5	2	3
2	2	2	2	3
2	5(1)	3(2)	2	3
2	4	3(2)	2	3
3	3	3	2	
6	4	3	2	2
4	3	7	2(2)	2(1)
3	2	2	2	
5	2	2	2	
3	2	3	3	
2	2	3	3	
4	5	3	3	
4	4(1)	3	3	
2	4(2)	4	3	
	3(2)			

Sample 2

5 7 4 3 7 1  
4 7 3 9 2 1  
5 7 2 3 2 1  
7 6 7 2 3 2 2  
5 3 2 2 2 2  
6 4 (1) 3 2 2 2 2  
3 3 3 2 2 2 2  
3 3 3 2 2 2 2  
2 4 2 6 4 3 1  
4 2 6 3 3 1 1  
2 6 3 3 1 1  
8 4 2 3 1 1 1  
4 4 3 2 3  
3 2 4 3 1 1  
7 3 2 4 3 1 1  
3 3 2 4 3 1 1

Sample 3

5 5 3 4 3 3  
5 3 3 2 3 2 2  
3 4 5 3 2 2 2  
3 3 3 3 3 3 2  
3 3 3 3 3 3 2  
1 3 2 2 2 2  
1 4 3 2 2 2  
2 3 6 4 2 2  
2 3 5 3 3 3 2  
2 3 2 3 3 3 2  
2 2 2 2 2 2

4

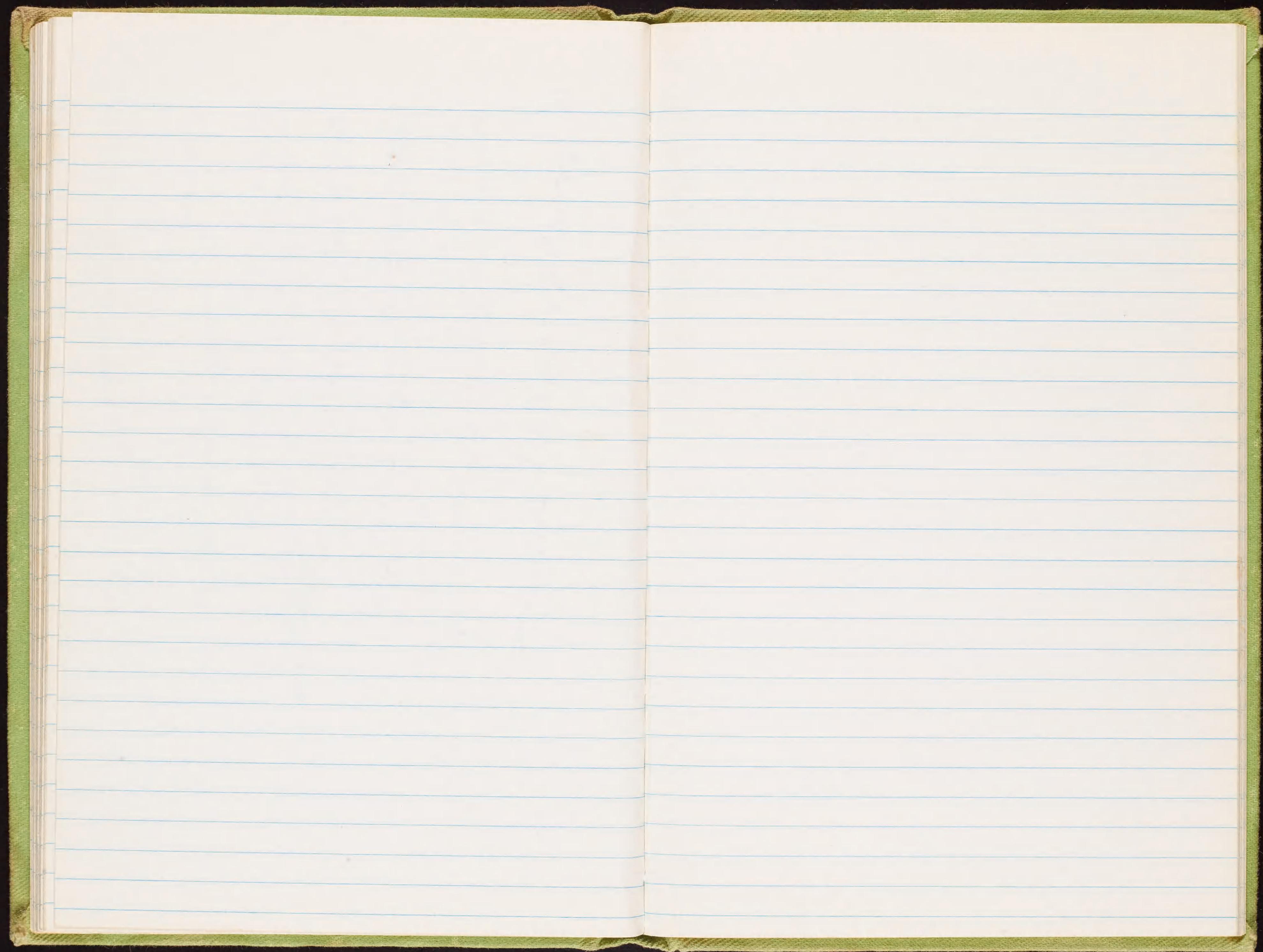
5cm

5	5	3	4	4	3
4	4	3	4	4	3
4	3	3	4	4	3
4	3	3	4	4	3
4	3	3	4	4	3
6	4	4	3	3	3
6	3	3	4	3	5
6	3	3	4	3	2
6	4	3	4	4	3
3	6	3	4	4	2
3	5	2	3	3	2
4	3	5	4	4	3
2	3	5	4	4	3
1	3	5	3	3	3
4	3	5	3	3	3
2	2	3	2	2	2
2	2	3	2	2	2

$5 \times 3$

5

3	2	3	3
7	3	3	3
6	3	3	3
5	1	3	2
5	1	3	2
3	2	2	3
5	3	2	2
5	2	2	2
3	2	2	2
5	4	3	3
2	3	3	2
2	3	3	2
3	3	2	2
3	3	2	2
2	2	2	2



May-June Total /

2	10	12
2	4	6
3	4	7
6	8	14

July Laurel mean  $\bar{x} = 10 \approx$

9	12	21
5	12	18
1	12	13

8 7  $\bar{x} = 12$  15

$\bar{x} = 16.5$

71.5°

